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ORIGINAL COMMUNICATIONS.

THE VOMITING OF PREGNANCY.

Read before the Philadelphia County Medical Society, September 13, 1882,

BY WILLIAM B. ATKINSON, M.D.

PERHAPS no condition of the pregnant woman is so full of annoyance, and at times so liable to lead to disastrous consequences, as the nausea which occurs particularly in the early months. Totally absent with some, with others it becomes a source of distress and danger, ceasing only with the expulsion of the fœtus or the death of the patient.

While the latter extreme is very rare, the constant spitting, nausea, or vomiting is frequently the accompaniment of a pregnancy, rendering the life of the woman a burden, and she only obtains a certain degree of comfort when, under the influence of anodynes, sleep secures for her a respite.

The limits of an introductory paper will not permit of any extended remarks beyond the strict line marked out by your business committee,—"The Prevention and Treatment of the Vomiting of Pregnancy."

Now, in order that we may be prepared to treat or prevent a disease, it is eminently necessary that we should understand its cause, its real nature. Undoubtedly this condition results from two causes. In the early stages, the nausea, etc., are due to sympathetic disturbance of the stomach. Later, we have added direct pressure upon and interference with the functions of that viscus.

Now, these causes act with greater or less power as they occur in a patient with an irritable stomach, one prone to be disturbed by the slightest irregularities in food or digestion, or in one who has an ostrich-like power which enables her to load the stomach and carry through to the bowels matters which can only be partially digested, and must eventually pass away as foreign bodies.

With the hope of making pregnancy so comfortable that the ordinary objection to this condition on the part of the woman may be greatly lessened, the entire prevention of nausea and vomiting has been proposed and sought for by many obstetricians.

We must not forget at this point that in earlier days, and even now to a limited extent, it was believed that a sick pregnancy was a healthy one, and many practitioners, when these symptoms were absent, endeavored to imitate them by the employment of ipecacuanha and similar drugs.

It is difficult to understand how to proceed to prevent a condition which has not presented itself, and which may never occur. For we find in practice that a large number of women never exhibit the slightest nausea in any of their pregnancies, and many others suffer so little that it is deemed of no moment.

We may, indeed, having other reasons to regard the woman as pregnant, advise her to avoid carefully all articles of food which are likely to give rise to irritable stomach, and also to observe care as to the regularity of her meals and habits. Beyond this we have no indications by which to be guided. The treatment of this trouble may then be considered under the heads of its relief when present, and efforts to prevent its return.

In the milder cases it is doubtful how much of the benefit is due to the remedy, and how much to the course of nature, in which the trouble would disappear spontaneously.

Many of the so-called cures which are so highly vaunted owe their supposed efficacy, in the successful cases, to the fact that little was needed to quiet an irritated stomach, irritated, perhaps, by carelessness or over-indulgence, which was intensified by the condition of the patient. It is only under this view that we can understand the wonderful effects of remedies as diverse as their names.

Therefore we may expect, and almost invariably obtain, relief in the great majority of cases from the use of sedatives and narcotics, as the bromides, chloral, morphia, carbonic acid water; from alkalies; from bitters, by their tonic action on the stomach, as gentian, calumba, quassia, nux vomica, etc.; from stimulants, as brandy, aromatic spirits of ammonia, champagne, the latter acting both by its stimulating quality and by the carbonic acid; from care in diet, carelessness in which frequently produces the earliest symptoms; from hygiene, change of locality, scenery, and occupation.

Those of us who attended the lectures

of the late Prof. Charles D. Meigs can recall the convincing manner in which he showed us how to combat this trouble, by requiring the patient to take a cup of tea and a piece of toast while yet in bed, only rising sufficiently to rest upon the elbow while eating, and then to resume the recumbent position until the stomach had time to acquire tone to enable her to arise without the nausea.

It is from these trifling cases that we have constantly heralded the wonderful benefits to be obtained by the use of certain remedies, which soon lose their hold on the profession, and are only recalled as a curiosity in the literature of the medical art.

As such cases are of very frequent occurrence, and demand treatment, we may mention those remedies which have proved most successful. Thus, we have prussic acid in small doses; aconite, of which the administration of a few drops of the tincture has been found of great benefit; the use of horseradish scraped fine, moistened with vinegar; arsenic, which is with many a favorite remedy; atropia or belladonna, combined with morphia; bismuth, the subnitrate, or, as preferred by some, the phosphate; calumba, highly extolled by Bartholow and others; carbolic acid, administered in drop doses; the oxalate of cerium, which at one time was regarded as a specific in these cases; chloral, which is usually prompt, and is best given in the form of an enema; chloroform and ether, either in small doses or by inhalation; the latter has proved useful when sprayed upon the spine; creasote, one of the earliest remedies; sulphate of copper, gr. iv. to water f℥j, five or six drops at a dose; hyoscyamia, which is claimed as effectual when all else has failed; iodine; ipecacuanha, which has recently been reported on by several observers, given in drop doses of the wine in a teaspoonful of water, repeated every hour; pepsin, lactopeptin, and their compounds; nux vomica, five to ten drops of the tincture, and recommended by Bartholow where the nausea is great, with little vomiting, in drop doses; the bromides of potassium and sodium, used by Busey in doses of thirty to sixty grains, dissolved in beef-tea, with the addition of brandy and laudanum, if required by the symptoms, and thrown into the rectum every four hours. Friedrich is tempted to regard the bromide of potassium as a specific in one to two grain doses daily.

Recently we have, on most excellent authority, a preparation made of the inner coating of the gizzard of the chicken, dried and reduced to an impalpable powder. In our hands this has frequently acted with great promptness and efficiency. While we may readily, and generally do, succeed in obtaining positive relief for our patients by the employment of some one or more of the above remedies, yet we occasionally encounter a case which obstinately refuses to yield to any remedy by the mouth, everything being rejected almost as soon as it reaches the stomach.

In these instances, the happiest results frequently follow medication by the rectum. Especially do we find this to obtain with chloral, which we have known to act speedily and pleasantly in a number of instances. Perhaps a better plan is the use of chloral, morphia, and belladonna or atropia, combined in a mucilage or in the form of a suppository. In several cases we have thus obtained a tolerance of food by the stomach, and thus we have relieved a threatened death by starvation.

In other cases we have obtained even better results by direct contact of these remedies with the os, and even within the cervix of the uterus.

In one case where, owing to the animal instincts of the husband, the nausea and vomiting were constantly reproduced, we each time succeeded in speedily checking it by passing a suppository of morphia, belladonna, and hyoscyamus up to the os, and keeping it closely applied.

Tanner employs suppositories made of belladonna, gr. iij; hyoscyamus, gr. x; and iodide of lead, gr. viiss.

Injections, both rectal and vaginal, are advocated by many, and Dr. Greene has succeeded with warm olive oil, after failing with warm water. Cold to the epigastrium, small pieces of ice swallowed or passed into the rectum or vagina, have proved serviceable.

As might be expected, electricity has its advocates, and Gaillard Thomas esteems it higher than any other remedy. A broad, flat electrode, made by stitching a flat sponge to sheet rubber, he fixes by means of adhesive plaster on the epigastrium, and a similar one under the spine, the patient lying on her back. A gentle current is passed, and continued for ten or even twenty-four hours.

Da Venezia, in a similar case, after all

else had failed, used a faradic current of moderate strength, one rheophore being applied to the side of the neck along the vagus, the other to the epigastrium. The patient was relieved at once, and after the fourth application was cured.

J. Marion Sims employs caustic to the os, even when the parts appear perfectly healthy. He claims the best results from this method.

It would appear that this treatment is that which in obstinate cases promises the best results. Especially is it indicated when an examination reveals erosion or other disease of the os uteri. Originally, the sole dependence was upon nitrate of silver, but equally good results are obtained by the glycerole of iodine.

Tannin, carbolic acid, in short, a great variety of remedies capable of relieving engorgement, erosion, or whatever evil condition may be present, have been found to act promptly in relieving the nausea, etc.

From the remarks of Dr. Sims and from the results in general practice it would appear as though all that is required is a means of producing an impression of a positive nature at the real seat of the affection, the os uteri. Hence we find severe cases are frequently at once terminated by ordinary anodyne or astringent injections, applied so as surely to produce their effect upon the os uteri.

While there is no doubt as to the safety of these applications properly employed, it is much to be questioned whether the same may be said of the plan proposed and carried out by some practitioners abroad,—that is, the dilatation of the os with the finger. No doubt such a method would at once relieve the nausea, but at the same time it might be anticipated as extremely likely to result in an abortion. For this reason I would hesitate as to its employment until every other remedy had failed, and the question had arisen whether we should not sacrifice the child to save the mother.

I earnestly believe that the question of premature delivery will rarely, if ever, occur when the treatment which I have so roughly sketched has been properly employed.

In this connection we may allude to the cases, though rare, where the husband has been the victim of nausea, while the pregnant wife was enjoying her usual health. Here we certainly cannot regard it as the result of sympathy between the womb and the stomach.

Before closing the subject of treatment I may mention that Pinard obtained immediate relief in several obstinate cases by the employment of inhalations of oxygen. I am not aware that it has been tried in this country.

A valuable aid, by allowing complete rest for the stomach, is the employment of rectal alimentation. Dr. H. F. Campbell has employed this plan in a number of instances, and with most gratifying results. Twice each day he injects very slowly and gently about eight ounces of beef-tea or some similar nutritious fluid. The advantages are complete rest for the stomach while nutrition is readily maintained. In the intervals between the injections a full goblet of water not quite cold was twice given, so as to supply the requisite amount of fluid.

In conclusion, permit me to sum up what I think is the duty of the practitioner in these cases:

The most complete rest of body and mind.

The avoidance of all forms of diet save those easy of digestion and assimilation.

The relief of the early symptoms by some one of the articles mentioned under the head of medication. Unless prompt relief is obtained, the use of chloral, morphia, belladonna, or hyoscyamus, or their combination, by the rectum or by the vagina. In the latter case it is important that we should first carefully cleanse away the discharge usually found clinging to the os and cervix, and then bring the medicaments closely in contact with the os, and maintain them there by the usual methods.

This failing, apply to the os and cervix, if need be, the glycerole of iodine or the nitrate of silver, and follow this by an application of the anodynes, as before.

If the vomiting is now great, abandon the stomach as a depot for food, and employ rectal alimentation solely. In each injection we may include with the nutrient chloral to aid in procuring complete rest.

To relieve the intense thirst which is generally present, we may allow the patient to swallow at intervals small lumps of ice, or to drink iced carbonic acid water, which is now so readily obtained from the siphon. Of course, just sufficient of this should be taken to relieve the throat at the moment.

I do not consider the dire alternative of induced abortion, as such a procedure rarely becomes necessary, and should only be employed after the most careful deliberation, and after a council of physicians had decided it to be imperative.

THE DIAGNOSIS OF PULMONARY SYPHILIS: ITS DIFFERENTIAL DIAGNOSIS FROM PULMONARY TUBERCULAR PHTHISIS, WITH SOME REMARKS ON THE PATHOLOGY OF LUNG-SYPHILIS.

BY HUGO ENGEL, A.M., M.D.,

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APRIL, 1881, Th. B., æt. 32, a man of considerable means, and occupying his time solely with the administration of a very large estate left by his father, stepped into my office, the very picture of an individual suffering from tubercular phthisis in its last stages. Nearly six feet tall, very slim, and of a phthisical habitus, with a pale face, feverish spots on the cheeks, deep-sunken but unnaturally brilliant eyes, flat chest, long bony fingers, and a hollow cough, he seemed to be in reality with more than one foot in his grave already. After a lengthened interview, I elicited the following history:

He had enjoyed remarkably good health up to his twenty-fourth year, when he contracted a chancre. This was soon healed, but was followed by a left-sided inguinal bubo, a syphilitic eruption, patches on the mucous membranes, syphilitic sore throat, and alopecia. Carefully attended by a physician skilful in the treatment of specific affections, B. appeared cured about two years after the first outbreak of the constitutional disease. He grew stout again, and was free, for three or four years, from any further manifestations of the luetic virus. But two years ago he commenced to complain of osteocopic pains, mainly at night. His former physician having died, he now drifted from one disciple of Æsculapius to another. His pains at last left him, or made their appearance occasionally only; but instead an ulcer showed itself over the left shin-bone, which surgeons declared to be due to an affection of the bone, and which was still not healed when I saw him. A year before, in the spring of 1880, he commenced to cough, which he ascribed to having taken cold while out hunting ducks. The cough ceased somewhat during the following summer, but not totally, and returned with greater severity in the autumn. After Christmas he lost flesh rapidly, had irregular fever almost daily, feeling hot in the afternoon and sweating the first part of the night, while in the mornings and forenoons he suffered from cold hands and feet and from chilly sensations. For the last two months he had been spitting blood, and expectorating queer round and flat-shaped elastic masses, mostly of a brownish, but sometimes grayish, color, which, on pressing them between the fingers, seemed to contain harder particles, breaking up under the pressure. The last physician he went to —one of our recognized authorities on diseases of the chest—had given him very little hope, and advised him to go to Florida if he wished to prolong his life or eventually effect a cure.

When I examined him, I detected, on percussion, dulness, amounting to absolute flatness at the left infra-clavicular region; a little lower, on the left side anteriorly, were the signs of a cavity and of breaking down of the lung-tissue. The clearness over the right apex was also impaired. On auscultation anteriorly, left side, hollow tubular breathing, with large gurgling sounds, were heard, while on the right side were prolonged expiration, some crackling, and a few dry and moist râles. The latter were present also posteriorly over both sides. The finger-nails, while not having the clubbed appearance, bore evidence of disturbed nutrition, being dry and broken.

There was no history whatever of tuberculosis in the family; but the case would have been set down by me undoubtedly as one of tubercular phthisis, had it not been for the want of the clubbed appearance of the nails, which I never have found absent in such well-marked cases, and for the peculiar character of the sputa, which I intended to examine microscopically. Besides, the sore on the leg looked to me too characteristic of syphilis. The hæmoptysis was not severe. The blood accompanied mostly the expectoration. About every week B. expectorated half a cupful of frothy blood. The latter then decreased in quantity, and became, as usually is the case, darker, till at last only a little surrounded the sputa, which, however, never were *streaked* with blood. Then a larger hemorrhage came, running the same course.

There was no fetor with these almost prune-colored masses. When I examined them with the microscope, I found the following:

Some of the expectorated matter had a flat shape, looked somewhat convex, and was of the size of the little finger nail. Other pieces, again, were round, and usually of the size of a split pea, or of a whole pea. Their color was mostly that of grayish sputa intimately mixed with more or less blood; it varied, therefore, from a grayish hue to a dark brown. The pieces were all tenacious, somewhat elastic, and might be compared to gum-drops which have been half dissolved in saliva. They were, if anything, a little softer, and did not consist of a homogeneous mass, but of this gum-like cover, with broken-down detritus as contents. They were all of a specific gravity greater than water, and sank to the

bottom if placed in a vessel filled with water. If they were surrounded by much mucus, which frequently was the case, they would first half swim and half go down. After a while the mucus continued to float on the top, while the other part went to the bottom. The pieces generally held well together, but at the margin parts fell off easily. The microscope showed them to consist of detritus of all kinds, nucleated and granular matter, all heaped together, granulated cells and finely-striped tissue, with many oil-globules. Some spindle cells were seen, and especially some of the pieces, when they contained a great deal of broken-down detritus and cells in every stage of development and of retrograde formation, exhibited plainly the picture which has been so well described as characteristic of lung-syphilis by Lancereaux.* Some of the tissue-rests had an appearance very similar to what we find in gummatous infiltrations of the brain, but then, again, they looked like amyloid degeneration, without, however, giving the color-reaction, and without, when treated with acetic acid, evincing a continuous process of development; but the appearance of the cells was rather as if the active process at some places had come not only to a standstill, but as if retrograde formation had gradually led or was leading to a reconstruction. This could especially be observed on some small fully-developed cells present in a finely-developing tissue or new growth, but not of a morbid character, rather as belonging to the normal lung-tissue, while others, again, plainly gave evidence of a similar beginning new growth, as we find it so abundantly in syphilitic tumors of the brain. Sometimes the cells appeared in a beautiful order with nuclei and nucleoli, and this seemed to start from one common point, like a beginning granulation with plenty of white globules of different sizes; but these latter were rare, and met with only when the regular arrangement of the cells could be observed, when they were seen at the very edge of the specimen.

From the remarkably good description of I. Edmund Güntz† (Dresden), whom we have to thank, perhaps, principally for our present knowledge of this subject, as he has taken the pains to describe one of his own cases very graphically, and has studied also the literature of the subject with unusual care, I have no doubt that the case above mentioned was correctly diagnosticated by me as one of pulmonary syphilis. Moreover, the result of treatment confirmed the diagnosis.

Supposing that I might be wrong,—in which case large doses of iodide of potassium would only have sooner brought about the inevitable fatal end of such a marked case of tubercular consumption, and knowing that B. had never been treated as yet in this manner,—I placed him on mercurial inunctions, rubbing daily in different parts of the body half a drachm of mercurial ointment into the skin. Instead of his getting weaker, the hæmoptysis ceased after the fifth inunction; after the eleventh all fever-symptoms had left him, he suffering instead of these from a more regular fever and occasional sweats, which I knew from experience were due to the impression made by the mercury; his cough had very much improved, and by the nineteenth inunction his phthisical symptoms were so much better that I—especially as a mild degree of stomatitis was developing itself—stopped the treatment by inunction, and placed the patient on gradually increasing doses of iodide of potassium, beginning with fifteen grains three times daily. Six weeks after the commencement of the anti-syphilitic treatment, his condition was as follows:

Temperature normal during the day; 99½° at night; no fever, no cold hands and feet, and no sweats. Cough very mild, coming rarely only, and accompanied by a white frothy expectoration or by none. His weight had increased twenty-two pounds, his appetite and digestion were undisturbed, and he slept well and complained of no pain. The ulcer on the leg had perfectly healed under a simple external treatment besides the internal medication already mentioned (then thirty grains of iodide of potassium *ter die*). Respiration easy, 19 per minute. Percussion normal, except over a small spot the size of a silver dollar anteriorly on the left side, beginning half an inch below the scapula and one inch to the left of the sternum. Here there was perfect dulness, and exactly over this spot no respiration could be heard. Evidently cicatricial tissue had formed on the place of the former cavity. Otherwise, all over the lung, respiration was normal. Only a few râles, moist in character, and coming evidently from a still existing catarrh of the bronchial tubes (perhaps due to the iodide?), were heard anteriorly on the left side over the upper and lower lobe; some few also under the armpit and posteriorly on the same side. Just below the clavicle, on the left side, the vesicular murmur was somewhat feeble and almost bronchio-vesicular in character: at last a faint expiration could be detected by the ear. On respiratory percussion, the dulness over the spot mentioned became still flatter.

A week before writing this article, I visited the patient again, and found him in very good health. He had no cough, no expectoration, and no fever at any time. He weighed one hundred and sixty-nine pounds; had gained, therefore, thirty-two pounds since last report, having weighed one hundred and fifteen pounds only when I first saw him. His temperature was normal. Percussion and auscultation elicited nowhere over the lungs

* Traité Hist. et Prat. de la Syphil. Paris, 1866.

† Allg. Med. Centr. Zeitschr., Nos. 52 and 53, 1882, page 670 *et seq.*, and 686 *et seq.*

anything abnormal, except over the spot described, and just below the left clavicle anteriorly, where there existed still the same physical signs—dulness and absence of respiratory sound over this spot, and indistinct vesicular murmur, with very slightly prolonged expiration below the clavicle—as had been noted as present at the time of the last report.

Concerning the diagnosis of pulmonary syphilis, we may mention the following points: first, the history of a specific infection, the primary sore, the bubo, and the symptoms and signs of the constitutional disease; then, possibly, the presence of an ulcer, osteocopic pains, or of marks left by cicatrices of former sores; perhaps also the absence of any hereditary tendency, though in the light of Koch's investigations concerning the true cause of tuberculosis this fact cannot be considered as being of great weight. Lastly, all the symptoms and physical signs of tubercular disease of the lung, accompanied always (such has been observed, at least, in all cases reported so far*) by frequent recurrence of a moderate hæmoptysis. But here comes an important point in the differential diagnosis between pulmonary syphilis and pulmonary consumption. In the latter these hemorrhages are not apt to be so frequent. The sputa in the last stages of phthisis (and it is with the tubercular disease in these stages that lung-syphilis is apt to be confounded) are nummular in form, mostly thick, yellow, while those of pulmonary lues are usually brownish or reddish, sometimes gray, and have those peculiarities which we so fully described above. Another point of differential diagnosis is the fact that the clubbed appearance of the nails (due to absorption of the fat-bolster) is, in the last stages of true tubercular consumption of the lungs, never absent (except, perhaps, in miliary tuberculosis, with which lung-syphilis cannot easily be confounded), while in pulmonary syphilis the nails give evidences of disturbed nutrition, but are never clubbed. The last, but by no means least in importance, is the success of the anti-syphilitic treatment, which, while it might only hasten the unavoidable fate of the consumptive, may, and will always, perhaps, save the life of the syphilitic patient, whom it will restore to comparative health.

We may now speak of the pathology of the disease, and mention some other interesting points important to know, and which we mostly glean from the very ingenious work of Güntz, already quoted.

The first important knowledge of the pathology of pulmonary syphilis was gained from the monograph of F. W. T. Pancritius.† Up to that time, notwithstanding clinicians were continuously mentioning cases of this disease, pathologists had done very little. The latter, endeavoring to find a special form of anatomical changes, such as exists in cancer, for instance, seemed to forget that while in cancer the morbid process is one continuously progressing, in syphilis many changes, as the result of the poison, and then, again, under the influence of treatment, must necessarily take place, and that we will find, as the result of the same cause, hyperplastic as well as atrophic processes, with nothing characteristic in them except the changes themselves, from new formations to simple nutritive changes, and to disturbed development, and to retrograde growth of the abnormal alterations. Another cause why it took so long a time before we became acquainted with the real changes taking place in syphilis, was the fact that most syphilitic processes are cured before the individual dies, and lesions in their originality are exceedingly rare to be met with after death.

Notwithstanding the literature of syphilis is perhaps the richest of any one disease, the first anatomical proof of a case of lung-syphilis, which had been diagnosticated in life, is given, according to Pancritius's statement,‡ by Pavlinoff,§ who made the first dissection of such a case, recognized during the lifetime of the individual. To give one more evidence, however, that the apparently most hopeless cases of this kind will eventually get well under correct treatment, Güntz cites another case of his own.‖

The post-mortem appearances are the following. The main changes noted are, besides some new formations, atrophic processes, which go hand in hand with those morbid alterations found in the part which is the seat of the progressing inflammation. The nature of the tissue affected gives character to the syphilitic process; that is, while we find all over the same well-known gummatous perivascular and interstitial in-

* (1) M. v. Cube, Allg. Med. Centr. Zeitschr., 1880, No. 103. (2) Güntz, Allg. Med. Centr. Zeitchr., 1882, 52, 53.

† Berlin, 1881, and Allg. Med. Centr. Zeitschr., 78, 1881.
‡ *Loc. cit.* § Virchow's Archiv, 1866, Bd. 37.
‖ Allg. Med. Centr. Zeitschr., 1882, 52, p. 671.

filtration accompanying the inflammatory action, the latter's nature depends upon the tissue itself, and is distinguished from simple inflammation due to non-specific causes not only by this infiltration but also by the peculiarity that alongside of the progressing changes, and of new formations based upon these, atrophic processes are noted. The syphiloma, the gumma, and every form of syphilitic action, if in the lung or anywhere else, have these same characteristics. If, for instance, the intima is affected, it first swells, bulges out; a step further, we plainly see cells often in the beginning of regeneration, and starting from different stages, from the simple infiltration to the fatty and granular detritus. In case a cure takes place, the tissue nearest does not go back to the norm, but the cells continue in a former stage of development, and from which later so many different changes may progress *de novo*. Sometimes only accumulating and not fully-finished areolar tissue is formed instead of the former homologous normal tissues. This "resting on a lower grade of development" can be recognized even with the naked eye on the points of ossification of the skeleton in cases of congenital syphilis, and also at the union between diaphysis and epiphysis. This process of atrophy is explained by Güntz as a "checked" development, the normal cartilage not changing fully into bone. The same analogous atrophic process is found in every syphilitic papule again, from the initial induration to the desquamation of the skin. Here the cells of the skin die off before their time, and in all syphilitic affections the same tardiness in development, the same tendency to regeneration, and the same "checking" in the progress forward and backward can be noted. One can observe on the white globules of the blood how they are checked in their development as red corpuscles, and how they carry this same tardiness into the tissues. In lung-syphilis we note the same inflammatory process with gummatous infiltration, the same slowness in the formation of new growths and in the breaking-down of the gummata or the decomposition of the gummatous infiltration, into which the healthy tissues are drawn, the same tardiness in the regeneration. When this process affects very delicate tissues, as the brain and the spinal cord, this checking during regeneration has one bad consequence,—the reformation is apt not to be accomplished thoroughly; and we note, therefore, in spinal paraplegia, or in cerebral hemiplegia, that in the paralyzed foot or leg, though the paralysis was caused rather rapidly to disappear, there is still some little dragging, the morbid process not having totally ceased or the regeneration not being fully established. Thence also the relapses, and the fact that they are apt to be of the same nature as the former seizure, starting from the point where they left off.

It is comparatively very rare to see the disease (pulmonary syphilis) in the well-to-do classes, one reason undoubtedly being that well-instructed physicians generally do not permit the disease to get such a hold of the system that the internal organs become threatened. Why lesions of the nerve-centres due to lues happen so frequently, and why affections of other organs, especially of the liver and the kidneys, and still more so of the lungs, are so much more infrequent, should surprise us the more, as such syphilitic morbid changes in the heart are by no means very rare. That iodide of potassium should have been recommended for the cure of tubercular consumption is difficult to explain, except on the hypothesis that cases of syphilitic infiltration of the lungs (pulmonary syphilis) have occasionally been mistaken for pulmonary phthisis, and the success of the specific treatment warranted, considering the error of diagnosis, the assumption of iodide of potash being a sovereign remedy in tuberculosis.

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A CASE OF "MOUNTAIN" FEVER.

BY RICHARD COLE NEWTON,
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FAGAN, a private, troop D, Fourth Cavalry, aged 23, was taken on sick report at Fort Stanton, New Mexico, November 20, 1881. Diagnosis, "mountain" fever. Patient somewhat emaciated, complaining of constant creeping chills, could not get warm. Tongue, ochre-colored coating, deep transverse fissures dry, Pulse rapid, rather thready. Ordered quinine in average doses. Patient says that he has not been well since he was at Fort Cummings, New Mexico, about the 10th of November, 1881.

November 23, patient seemed worse, was taken into the hospital; quinine increased

to gr. v every two hours. NOTE.—Until the recent epidemic of typhoid fever here at Fort Cummings, I have since I came to New Mexico usually crowded the quinine in all cases of "mountain" (typho-malarial) fever, with uniformly good results. This case was the first death among the enlisted men or officers; in fact, only the second case of death from fever which occurred during my service at Fort Stanton (two years and four months).

After admission to hospital Fagan seemed to improve gradually. He was never confined to his bed; was brave and cheerful; had a fair appetite; his temperature was never found over 100° F. Tongue began to clean up. This gradual amelioration continued until the 13th of December. The case was not considered as anything more than an obstinate case of quotidian intermittent. On the 13th of December patient asked permission to take a package of medicine to an isolated case of diphtheria; he walked in all about one mile, complained of feeling exhausted upon his return. At 4 P.M. on the same day patient began to vomit furiously; complained of no pain; face anxious and somewhat cyanotic; temperature 102⅘°; pulse rapid and thready. Morphine was given hypodermically, and repeated twice or three times before morning. Dec. 14.—Still obstinate emesis; cracked ice and brandy, sinapisms to epigastrium, and morphine hypodermically, of no avail. Quinine had been faithfully given, gr. v every two hours, since the man came into the hospital, three weeks before. On the 13th a careful examination of the abdomen elicited nothing, no pain anywhere, no tenderness on pressure; no tympanitis, rose-colored spots, or gurgling; the heart was evidently failing; mind clear; disposition cheerful. Ordered digitalis and brandy to be freely administered. This had to be discontinued that evening, on account of emesis.

Dec. 15.—Digitalis, brandy, and beef-tea were given by enema, ordered to be given every four hours, and milk-punch every two hours, if the rectum would retain so much. There was no diarrhœa, and the enemata were for the most part retained, but this provoked anew the emesis, and so thwarted our design of giving the stomach a season of complete rest. Still complains of no pain. Is covered by four or five bed-blankets; pulse 124; temperature 100⅘° in the morning. In the evening, pulse 102, temperature 102⅖°.

Dec. 16.—At 2 A.M. patient passed into a state of collapse; legs cold to the knees; pulse scarcely perceptible; vomiting and gasping; heat and stimulation, however, revived the man somewhat. At 9 A.M. considerably better; pulse 128; temperature 100⅕° F. Moderate singultus; emesis somewhat under control; grew gradually weaker, and died at 9.15 P.M., just after "taps."

Autopsy, twelve hours after death.—Body emaciated; rigor mortis not ascertainable, owing to the extremely cold place in which examination was made. Some sedulation of blood.

Head.—Not examined.

Thorax.—Heart and great vessels normal, to gross appearances, except that the heart-walls were rather flabby and pale.

Lungs.—*Right*, throughout upper and middle lobes there were a few scattered lobular pneumonias, about as large as a filbert, and moderate bronchitis (acute). In the lower lobe, posteriorly, some hypostatic pneumonia. *Left*, much the same as right, except that pneumonias (hypostatic and lobular) were more extended.

On opening the abdomen, an extensive and general peritonitis (acute) was manifested. Bands of lymph, partly organized, lay over the coils of intestine in various directions. Much free serum and pus in the peritoneal cavity. In fact, so general was this serous inflammation that no part of the membrane escaped. There were perihepatitis, perisplenitis, and perigastritis. All the intestinal vessels were engorged, the small intestine particularly, and the stomach and colon also were a brilliant red from congestion of the small vessels. The stomach presented the appearance of acute gastritis; several ulcers, two or three near the pylorus, larger than a split pea: these extended through the mucous coat. I found also duodenitis and ulcers in the duodenum. These were smaller but more thickly placed than in the stomach.

As we approach the cæcum the evidences of inflammation, typhoid in character, meet us. The upper part of the ileum has many prominent solitary glands. In the lower portion the glands of Peyer and the solitary glands are *very* prominent. The former present the shaven-beard appearance near the ileo-cæcal valve. The agminated glands have ulcerated. There are

several large and deep ulcers quite near the valve, and probably one or more of these ulcers extends through into the peritoneal cavity. (No adequate means of thoroughly examining the intestines were at hand. The extreme coldness of the room has already been referred to.)

Colon.—Vessels engorged; numerous small ulcers of solitary glands.

Spleen.—An abscess occupying about one-third of its area. Surrounding mass soft and pultaceous. Broke it in pieces getting it out. Whole spleen seemed three times its normal size. Color, dark red.

Kidneys.—Normal, but pale.

Bladder.—Not examined. It was, however, not distended.

Liver.—Fatty in spots (probably acute degeneration), otherwise normal.

FORT CUMMINGS, NEW MEXICO.

NOTES OF HOSPITAL PRACTICE.

UNIVERSITY HOSPITAL.

CLINIC OF PROF. H. C. WOOD.

Reported by WILLIAM H. MORRISON, M.D.

CHRONIC MENINGITIS FOLLOWING SUNSTROKE.

GENTLEMEN,—The first case that I bring before you to-day is one of considerable therapeutic and diagnostic interest. The man's story is that he is a laborer, that he was perfectly well until July one year ago, and that at that time he had what he calls a sunstroke, to which he attributes his present illness.

In every case of supposed sunstroke it is necessary to inquire very carefully in regard to the nature of the first attack, in order to decide whether it was or was not a case of sunstroke. A year or two ago we had in this hospital a doctor who had had an extensive practice in Western New York. He was suffering from what had been diagnosed as the effects of a fall from his carriage. After a careful study of his case, I decided that the fall from the carriage was the result of a sunstroke. He had been under treatment for two years before he came here. While delirious, the doctor jumped from a window and was killed, enabling us by post-mortem examination to verify the diagnosis made during life.

In order to recognize a sunstroke, you first inquire as to the weather at the time of the attack; in the second place, if the patient be intelligent enough, you inquire as to the existence or non-existence of fever during the attack, for, as you are aware, there is intense fever in true sunstroke; and in the third place, you ask as to the effect of heat upon existing symptoms. When a person is suffering from lesions following true sunstroke, the symptoms are invariably made worse by exposure to heat, so that in any case where you have a history of increased severity of symptoms from exposure to heat you are strongly led to ascribe the original attack to sunstroke.

This man tells me that he was working in the sun when first taken, and that it was a very hot day. You must not, however, get the idea that exposure to the sun is necessary to cause sunstroke. If the temperature be hot enough, a man may suffer a *coup de soleil* while in the shade. The worst epidemics of sunstroke have been produced by the stifling heat of tropical nights.

Our patient states that everything got black before him. This passed over in a short time, and in a few hours he returned to his work, and we are left in great doubt as to whether there was really any thermic fever. In reference to the effect of hot weather on the symptoms, he says that he is worse in summer than in winter, and that he has been obliged to stay home from work on several occasions this summer.

The symptoms of which he complains are nervousness and a pain in the head. His headache is worse this summer than it has been before.

You see, gentlemen, that we have here a case in which the history is somewhat obscure. There was some kind of an attack during hot weather, and since that time there have been headache and nervousness, these symptoms being aggravated by exposure to heat.

What are the lesions which especially follow sunstroke? There can be no doubt that in many cases of sunstroke the attack passing off leaves only what may be termed a functional sensitiveness. If you could make a critical microscopic examination of such a brain, you would find no anatomical change, but there remains some condition which makes the nerve-tissue exceedingly sensitive to the irritant which first affected it.

In cases in which the sequelæ of sunstroke are more severe, the cortical surface of the

brain shows evidence of habitual congestion, and there will also be found, more marked in some cases than in others, congestion of the membranes; and in cases in which the sequelæ are at all severe, almost always there is meningitis. In the doctor of whom I have spoken, the membranes were greatly thickened, very much reddened, and well plastered over with lymph.

In chronic meningitis the prominent symptom is headache, and if the meningitis has lasted sufficiently long there is with the headache a certain amount of failure of brain-power. The cortical surface of the brain gets its blood-supply from the brain-membranes, while the internal ganglia receive their supply from the little vessels which come through the cribriform space. This being the case, any inflammation of the brain-membrane, accompanied by exudation and pressure on the blood-vessels, must of course cause disturbances of the circulation in the gray matter of the brain, leading to changes which are secondary to the meningitis. So that when meningitis has lasted for a considerable length of time, or been severe, there are found evidences of brain-failure; but the headache in meningitis is the prominent symptom. If, on the other hand, there be a primary chronic inflammation of the cortical layer of the brain, there may be some headache, but the most marked symptoms are those of mental failure. I doubt if the brain proper is ever the seat of pain, except there be such change as to affect the general intra-cerebral pressure. I have sliced the brains of dogs with a knife without eliciting the least expression of pain; but the moment the membranes were touched, the animals howled and struggled. In the present case, considering the history, the persistent headache, and the increase of the symptoms produced by heat, it seems to me that we are warranted in diagnosing meningeal inflammation following *coup de soleil*. The failure of memory, which is affirmed to be present, indicates that the disease of the membranes has been sufficient to affect the cerebral circulation.

Under these circumstances the treatment is obvious. The first thing to be done, in all these cases, is to keep the patient away from the heat. In the case of a laboring-man, this is of course impossible; but in those who have means, you should make a cool climate the basis of your treatment. I recall the case of a graduate of this school, a surgeon in the United States army. He had sunstroke while in Texas. This was followed by cerebral symptoms, with epileptic attacks. That man would probably have died if he had remained in Texas. I had him removed to the North, and insisted on his remaining there. He has since recovered his health.

Medicines under these circumstances, although necessary, are powerless unless attention is paid to the hygiene. If the meningitis be severe, you may use local depletion and mercury. Directly after the sunstroke this treatment may be required, but when the cases are usually seen, iodide of potassium, persisted in for months, is the proper remedy. Even more important than the drug is counter-irritation; and the best counter-irritant is the actual cautery, used weekly or bi-weekly.

Under this plan of treatment, keeping the patient away from the heat, the use of the iodide of potassium, and the persistent employment of counter-irritation, these cases of the secondary effects of sunstroke usually get well.

SOFTENING OF THE BRAIN.

The next case is one in which the gray matter of the brain, rather than the membranes, is affected. I bring this case in connection with the previous one, so that you may bear in mind the diagnostic distinctions between the two classes of affections. As I have told you, headache is the prominent symptom in meningitis and diseases of the membranes, and failure of mental power is especially characteristic of diseases of the brain.

This patient comes to us without any history. He says that he has been sick for three months; but this trouble has probably been coming on for a much longer time. You noticed that his answers to the questions I asked him were hesitating and indicated a marked loss of memory. The first main symptom in this case is failure of mental power, without headache, or at least without pronounced headache. The mental failure consists in loss of memory, inability to fix the attention, and inability to reason. The only other important symptom that the man has is a local weakness in the right side. You observe when he walks that he drags the right foot to a certain extent, and that when I tell him to elevate his arms he cannot bring the right

arm to a right angle with the body. There is, then, partial paralysis of the right arm and leg,—*i.e.*, partial right-sided hemiplegia.

The absence of any history increases the difficulty of making the diagnosis; yet I think we know enough of this man's condition to say that he is suffering from some form of brain-softening.

I have not time to-day to go into this subject in detail, but I shall call attention to one or two points. In the first place, the symptoms of brain-softening are those of gradual loss of mental power, eventually deepening into imbecility, along with, in some cases, delirium and a continually progressive loss of muscular power, which is usually more manifest in one part of the body than in another.

Brain-softening may be an almost primary disease (although it probably is never really primary), or it may be secondary, developing around a clot or around a tumor.

The diagnosis of brain-softening is easy if you have the history of the case. If there has been a gradual failure of mental power and failure of motor power without marked headache, along with absence of the evidences of a tumor or other localized brain-disease, you have almost sufficient data for a diagnosis. Remember, however, that in some cases the localized paralysis is absent, while in others it may be very marked. There is another point about these motor symptoms which it is important to bear in mind,—namely, their transient nature. If in a case of progressive mental failure you find that one day the arm and leg are very weak, and the next much better, and the succeeding day the paralysis comes on again, so that you have a series of rises and falls in the severity of the motor symptoms, you have good reason to suspect brain-softening of some kind. This peculiar lack of permanency is almost characteristic of the affection. From what we have been able to learn from this man, there seems to be this variability in the depth of his paralysis. He has either primary softening, or softening resulting from some growth within the brain. I shall probably bring this man again before you for a further study of his condition.

HYSTERICAL BREAST.

This case is one of importance, because it represents a class of cases which are not very rare, and which often are horribly misunderstood and wretchedly maltreated. This is a case of hysterical breast. There has been some talk of having this breast amputated, when really there is no organic trouble at all.

She tells me that she is 24 years old, and that three years ago she began to have severe pain in the right breast, which at times has been much swollen. She has had difficulty in using the right arm on account of the pain in the breast and under the arm. She had an ointment (probably antimonial) applied, which made the part sore; then poultices were used; then carbolic acid; then injections of carbolic acid into the gland; and lastly the doctor and herself thought it would be well to have the lump cut out, but her parents would not consent to this. She states that the lump is more marked at night than during the day.

Examining the breast, I find an exceedingly small lump. The gland is very small. When I place my hand on the breast, it gives intense pain. The tenderness is much more marked on light pressure than on heavy pressure: indeed, she says that strong pressure relieves the pain.

You see how a case like this might simulate a tumor of the breast. Often a lump can be felt in the breast. There is pain in the breast, and that pain is made worse by using the arm. The pain sometimes extends down the arm.

The diagnosis between this condition and organic tumor of the breast can almost always be made by paying attention to the following points. In the first place, in regard to tenderness, the pain is more marked from merely brushing the part than it is from strong pressure. In organic tumor the pain is proportionately increased by pressure. Again, the character of the swelling is an aid in diagnosis. It is a diffused swelling, and lacks limitation. It also varies very much in size at different times. It can be seen at one time and not at another. An organic tumor is persistent in form and hardness. In the neurotic breast the pain is very much affected by the weather and by fatigue. In the present case the pain is increased by stormy weather and by extra exertion.

You notice that this lady has large full eyes with large drooping eyelashes. Whenever you see these in the Anglo-Saxon race, especially in a female, you have a person

of an hysterical temperament, and a neurotic element will enter into the diseases of such a person. You must always be on your guard not to mistake a neurotic affection for organic disease. This neurotic trouble is seen not only in the breast, but it may also affect a joint, and you have an hysterical joint simulating chronic arthritis.

There is one form of neurotic affection of the breast which is not often alluded to in the books, and which often gives rise to a good deal of alarm. You know that at puberty, when the system is expanding from childhood to womanhood, the breasts swell. If the person be of a neurotic temperament, there frequently is a good deal of disturbance of the part, the breasts becoming swollen and very tender. If both breasts swell at the same time and all the genital organs unfold themselves simultaneously, this condition is not so likely to occasion alarm; but in neurotic young girls there is often irregularity, so that while one breast remains unaffected the other may suddenly grow hot, become swollen and exceedingly tender, developing into a condition very similar to, if not identical with, that of neurotic breast. Some time ago I had the daughter of a physician brought to me suffering from this condition. One breast was small and undeveloped, while the other was swollen, tender, and so painful as to impede the movements of the arm, but the breast lacked the redness of inflammation, the feeling was different from that of a hard, inflamed breast. Moreover, there was no reason why the breast should be inflamed, and, in addition, the child was of a neurotic temperament and at the age of puberty. I therefore told the parents that there was no occasion for alarm, as it was merely an irregular efflorescence.

I have in a number of instances seen the same condition in boys; for even in the male at puberty the breasts will occasionally swell and sometimes secrete a few drops of a serous fluid.

These cases of neurotic breast are usually quite amenable to treatment, but sometimes they are very intractable. The treatment should be addressed to the local disorder, and also to the condition of the system. In many cases a galvanic current will rapidly bring relief. Why this is I do not know, any more than I know why a galvanic current will relieve some cases of neuralgia. The method of application is by placing a large sponge connected with the positive pole over the breast and allowing the patient to hold in the hand a small sponge connected with the negative pole. The current is then allowed to pass for twenty minutes steadily through the part. Great relief will often be experienced at once. When you obtain a temporary relief after a few minutes' application, a repetition of the treatment is almost always followed in the course of two or three weeks by a permanent cure. The current should be of such strength that the patient can feel it and that it will produce redness of the skin without causing pain. It should be applied daily for about fifteen or twenty minutes. The application of belladonna to the breast often affords relief.

The treatment of the neurotic element is the same as you employ in other cases of nervousness with failure of nerve-power. You do all that you can to build up the strength and constitution of the patient. You accomplish this in the first place by attention to hygiene, and in the second place by the use of tonics. You do not use tonics if there are any signs of irritation of the gastro-intestinal canal. In many of these cases there is disorder of the intestinal tract. Do not use tonics in such a case. Tonics are probably the worst abused of all drugs. A person is suffering from debility and disordered digestion; he is immediately put on the use of tonics. This is like trying to put out a fire by pouring benzine on it. You not only waste your tonic, but you increase the gastro-intestinal trouble. Debility is not a disease; a cause for it can usually be found. If you remove the cause, the debility will take care of itself. As there seems to be no trouble with the stomach and bowels in this patient, I shall give her arsenic and iron in combination with some better tonic. In the majority of these cases you will find the best treatment to be the so-called rest treatment, which is a long process of rest, high feeding, and administration of tonics, with what may be called artificial exercise.

THE Pathological Society of Philadelphia has offered a prize of fifty dollars for the best original paper based upon pathological investigation read during the winter by a member who is a hospital resident.

TRANSLATIONS.

THE TREATMENT OF TAPE-WORM.—Dr. Berenger-Feraud, in the *Bulletin Générale de Thérapeutique* (August 15), communicates the results of the various kinds of treatment for the removal of the unarmed tape-worm, obtained by him at Cherbourg and elsewhere. He reports a decided increase in the number of cases of this kind applying for treatment. As to his results, he states that out of more than a thousand cases under observation, he found that about 79 per cent. had but one parasite, 13 per cent. had two, 5 per cent. had three, and only 3 per cent. had a greater number. From several methods of treatment, he gives the following as the results of his observations:

Spirits of Turpentine.—Out of eight cases in which this was administered, one only occurred in which the head of the worm was discovered. The remedy was complained of by the patients on account of its producing digestive disturbance, and its being extremely disagreeable to take. He regards this method, therefore, only as a palliative, and, as large doses are not without danger, recommends that it be definitely renounced.

Male Fern.—The number of his cases is so small in which this was used that although they were sufficiently successful to give great confidence in the remedy, no final conclusion was warranted, but further experiment was regarded as needed to determine its value.

Pumpkin-seed.—In thirty cases in which this remedy was given, complete success occurred but once, but in twenty-eight others more or less of the worm was expelled without the head. From a larger number of observations it was concluded that this method succeeded completely in about 5 per cent. of the cases.

Kocsso.—This was employed in two hundred and three patients, but in eighteen the result was not known. Out of the remainder, there were twenty-two complete successes, one hundred and twenty-six expulsions of worm without the head, and in thirty-nine there was failure.

Pomegranate-root bark gave about 45 to 50 per cent. of successes in about four hundred cases; but *pelletièrene tannate* he regards as the most powerful tæniafuge which we possess, as the worm was completely expelled in 76 per cent. of the cases in which it was used. The following details of administering the remedy (*Tanret's pelletièrine*) were those adopted by the author, by whom they are considered important, in order to secure the desired result:

"The subject, on entering the hospital, is put on ordinary diet until the presence of the tape-worm joints are discovered in the stools. This proof having been obtained, he is put upon a milk diet,—that is to say, three quarts of milk, and, if needed, about 300 grammes (10 oz.) of bread, for two meals. On the next morning at six o'clock there is given to the patient (who should remain lying in bed during the administration of the tæniafuge) an infusion of 10 grammes of senna-leaves in 100 grammes of water sweetened with 30 grammes of syrup of orange-peel. At seven o'clock the patient takes half the dose of pelletièrine diffused in twice its weight of water, in order that too great a quantity of the medicament shall not rest in contact with the sides of the worm. At seven and a half o'clock the second half is to be given, and the bottle which contained the pelletièrine rinsed out with about 10 grammes of water, which is also to be swallowed.

"The patient, still remaining in bed, should close his eyes and keep quiet, to avoid nausea and vomiting. At eight o'clock, if there is no sickness, or a little later, after the nausea has stopped for a while if it had manifested itself, 30 or 40 grammes of castor oil emulsified with spirit of peppermint (10 grammes) and sweetened water (20 grammes) are to be given.

"If an hour after the ingestion of the castor oil there has still been no stool, a large emollient lavement is to be given, followed, if need be, by a purgative enema (15 grammes of senna-leaves, 30 grammes of sulphate of soda, and 300 grammes of water), and, finally, large emollient injections, in order to solicit the intestine to defecation without delay.

"The subject places himself for evacuation upon a vessel half full of water, with directions not to draw upon the worm in case it is only partly discharged at first. In this event the attendant should give a large injection, endeavoring not to break the worm, in order to facilitate its complete expulsion."

Generally, in one hour after giving the castor oil, a large stool is obtained, in which the chances are that the worm will be ex-

pelled entire; sometimes it does not appear until the second or third discharge. It may be necessary to increase this dose of senna and oil when patients are known to be difficult to purge, or a second dose of oil may be given at noon. The greatest importance in this scheme of treatment, for success, is attached to the rapidity as well as the energy of the purgative.

A Case of Canities, or Rapid Decoloration of the Hair, in the Course of Violent Neuralgia.—Dr. Raymond reports a case in the *Revue de Médecine* of which the following is an abstract. Mme. D., 38 years of age, of medium size, possessed an abundant head of hair, whose black color contrasted strongly with a very fair skin. She had always been of good health, and, though of nervous temperament, had never had any hysterical manifestation. In July, 1881, she grieved very much over a separation from her son, who was sent away to college, and, although her general health did not suffer otherwise, she could not sleep at night during the month of July and part of August; she then went to the sea-side, where the insomnia was overcome. Last January, after a violent mental shock, caused by learning the result of some unfortunate investments, she became agitated, restless, and soon lost her appetite and sleep; finally she suffered from neuralgic pains in various parts of the body. It is important to add that at the moment she received the bad news the menstrual epoch had begun, but the flow was immediately suspended.

Admitted to the hospital July 27, she was very weak, and suffered from general neuralgic pains, which were worse, however, in the head, the abdomen, in front of the shoulders, and in the tibias. Nothing especially noteworthy was observed upon examination, except that in certain portions of the face and elsewhere there were tender spots (of Valleix), and in the ovarian region deep pressure on each side was painful. During the next few days the pains became much worse, in spite of morphia, bromide of potassium, quinine, etc. On the 31st, the neuralgia of the head was atrocious, morphia was perfectly powerless, and the patient was very restless, crying out, and suffering greatly. At two o'clock in the morning the pains were at the maximum. At this time the hair still had its normal color. In the morning, at seven o'clock, Mme. D. was found with her hair almost completely decolorized. At the sides of the head, and behind, the black color was partly preserved, but it was not so with the other regions. The top of the head showed hairs which for the most part were of a bright red color; they appeared as if burnt or scorched; of these there were a great many, but the others were completely blanched, both in front and at the sides. While the hair of the head was thus rapidly whitened as the result of the severe suffering from neuralgia, that of other regions of the body was not affected at all. In spite of the discoloration of the hair, the headache persisted just as violently as before. She took during the next eight hours ten grammes of potassium bromide, and by five o'clock in the evening she was better, and was able to sleep, although she had not slept before for many nights. Afterwards the pains did not return, but the hair rapidly fell out, so that in a fortnight very few hairs were left upon her head, these being laterally and in the occipital region. She now is obliged to wear a perruque.

[Although questioned by Haller and denied by Kaposi, the truth of instances similar to the above cannot longer be doubted, especially since the publication of the classical paper by Charcot on this subject (*Gaz. Hebdomad.*, 1861). The cases of Sir Thomas More and Marie Antoinette, who became gray in a single night, are well known: they belong to history. Sir James Paget in his lectures refers to another remarkable case, in which a lady subject to nervous headaches sometimes found on the following morning the hair white in patches, as if powdered. This change would occur in a single night, but a few days later the hair gradually regained its color.—Trans.]

Septic Poisoning, and the Scientific Basis of Antisepsis.—P. Zweifel communicates to the *Zeitschrift für Physiologische Chemie* (*Centralblatt für Chirurgie*, No. 32) the results of some very interesting experiments upon the development of septic forms and septic poisoning. The greatest care was exercised to prevent the air from vitiating the results of the observations, which were made upon blood taken from the carotid artery of a dog. Without discussing the details, the results of the numerous observations were, in brief, as follows: (1) Blood kept rigidly excluded from the air at the

temperature of the body, for a week, showed no signs of putrefaction, but there were found regular micrococci forms in active motion; (2) blood under exactly the same circumstances, except that it had been previously deoxygenated, did putrefy. In another series of experiments normal blood and deoxygenated blood were used for injection into the peritoneal cavity of rabbits. In the first class of cases no bad results followed; in the second the rabbits died of septicæmia. *Normal blood, therefore, by being deprived of its oxygen without being exposed to the influence of atmospheric germs, had become poisonous and had acquired septic properties.* Since the morphological elements did not differ in the two specimens of blood, it also follows that *no pathogenic property is inherent in the organisms found in these experiments, unless these micrococci can form a poison in the blood as soon as there is no more oxygen to be consumed.*

These experiments, made to establish the scientific basis of antisepsis, are most significant and appropriate. The paper concludes with a series in which fresh defibrinated blood was mixed with solutions of the various antiseptic agents so called. A solution of carbolic acid strong enough to destroy the micrococci also produced serious alteration in the cellular elements of the blood. A one-per-cent. solution of salicylic acid prevented putrefaction, but did not retard the activity of the micrococci; but the blood-cells remained without any evident change.

THE TREATMENT OF INCARCERATED HERNIA.—In a communication to the *Berliner Klinischer Wochenschrift* (No. 30), Dr. Finckelstein calls attention to the treatment of cases of irreducible hernia, where an operation, owing to objections on the part of the patient or other cause, cannot be performed. He recommends local etherization combined with other agents, as follows:

℞ Ol. hyoscyami, 10 grm.;
Æther. sulphuric., 60 grm.;
Ext. belladonnæ, 1.50 grm. M.

A tablespoonful of this mixture to be poured slowly upon the surface of the swelling every quarter of an hour. Under these applications, even after previous failure of taxis, the hernia is often spontaneously reduced; in other cases a slight pressure will only be required after several applications have been made to cause it to disappear. During eleven years the author had met with sixty-three cases of incarcerated hernia; in five taxis was successful, in fifty-eight the local etherizations were practised; fifty-four were successful, in four only were the results negative. Of the latter, two were operated upon, the remaining two died without operation. Of the whole number, sixty were male, three female. There were two small (hazel-nut size) ventral herniæ in men, three umbilical herniæ in women, forty-eight inguinal herniæ (one woman, forty-seven men), and ten crural herniæ (men). It is recommended that too much time should not be lost. As soon as it is ascertained that the hernia is irreducible by ordinary taxis, the ether should be resorted to as soon as possible, before the bowel becomes paralyzed.

TREATMENT OF TAPE-WORM BY MALE FERN.—In a communication to the Société Pratique, M. Duchesne stated that he had used the following preparation with uniform success in the treatment of tæniæ:

℞ Ext. filicis maris æther., 4 gr.;
Sacchari, 8 gr.;
Hydrarg. chlor. mitis., 0.40 m.

Make with gelatin and water into a jelly, to be given at one dose to a child five years of age. In adults, he uses capsules containing 50 cgm. of ethereal extract of male fern, with 5 cgm. of calomel, one of these to be given every five minutes until sixteen are taken. He recommends that the patient seat himself during defecation upon a vessel full of water, so that the worm may be expelled without being broken by its own weight. Otherwise it is often difficult to decide whether the head has been expelled or not.—*Journal de Médecine de Paris.*

TREATMENT OF A COLD.—The following is recommended by M. Vigier as a pectoral in place of the nostrums so commonly used:

℞ Syrup. adianti (*s. capillaire*), 200 grm.;
Ext. opii, 0.10 grm.;
" hyoscyami, 0.20 grm.;
" aconiti [aq.], 0.30 grm.

Dissolve the extracts in distilled water (about 3 or 4 grms.), filter, and add the syrup. This is to be taken in tablespoonful doses three or four times daily.—*La France Méd.*, No. 18, 1882.—[Probably the aqueous and not the alcoholic extract of aconite is meant.—ED.]

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, OCTOBER 7, 1882.

EDITORIAL.

DEMONSTRATION OF THE BACILLUS TUBERCULOSIS.

BY invitation of the College of Physicians of this city, Prof. J. T. Whitaker, of Cincinnati, who has been investigating the subject in Koch's laboratory, in Berlin, gave an informal demonstration of the reputed bacillus of tubercle, and exhibited a number of specimens at a meeting specially held on the 18th ult.

He introduced his remarks with a short reference to the history of the doctrine of the contagiousness of consumption, giving a *résumé* of the experiments of Villemin, Klein, Cohnheim, Klebs, Chauveau, and others with regard to determining the question of the communicability of tuberculosis, and finally described the discovery of Koch of the tubercle bacillus, and the means taken to verify the supposed fact of its being the primary cause of pulmonary consumption. The means by which this organism can be detected were given in detail. Having a solution of aniline oil, in excess, in distilled water (previously agitated for five hours), add to it methyl violet in alcohol (a concentrated solution) in the proportion of one hundred parts of the first to eleven of the second, which constitutes the first coloring. Then with a platinum probe (rendered aseptic by heat), a small portion of the sputum or tissue is taken up and laid upon a glass slide, which is to be passed two or three times through the flame in order to dry it, being careful not to burn it. Some of the coloring-solution is now placed in a watch-glass, and the glass slide placed on top of it, face downwards, so as to expose the specimen to the solution, where it is allowed to rest for half an hour. The next operation is to decolorize it to a certain extent by exposing it to an acid bath (nitric acid, one part; distilled water, two parts), in which it is immersed and allowed to remain until it is almost entirely decolorized. It is then removed and washed. A few drops of vesuvin are then allowed to flow over the surface, which gives everything a brown color *except the tubercle bacillus*, which keeps the violet color. The excess of coloring-matter is next removed, and the specimen is ready for mounting and examination under a power of from four hundred and fifty to five hundred diameters. A number of beautiful preparations were exhibited under the several microscopes upon the table. The lecturer declared that the bacillus of tubercle might be identified not only by its chemical and physical characters, which were described, but also by physiological experiment. He also explained the method of culture followed by Koch, and the results of his experiments upon rabbits. It was found in the course of the experiments that the tubercle bacillus only thrived in a temperature of from 30° C. to 41° C., and therefore its natural habitat must be inside the human body, especially in the lungs. The pathology of consumption, he believed, may be regarded as definitely settled, its place being among the acute infectious diseases. Tuberculosis means infection by the tubercle bacillus; and the giant cells found in the alveoli, about which there had been much discussion, are now regarded simply as large capsules for bacilli.

The specimens are now in the possession of Dr. Formad, of this city, who will take an early opportunity of presenting them before the Pathological Society and the County Medical Society.

The physiological experiments of Koch are very significant and highly important, since they demonstrate that a disease in certain of the lower animals, strongly resembling the disease termed tuberculosis

in the human subject, may be initiated by the introduction of tubercular products; and, further, that these tubercular products are much more susceptible of conveying disease than had been hitherto suspected by those who had simply studied consumption clinically. It can scarcely be claimed that they definitely prove that the bacillus in question is the sole cause of tuberculosis, especially in the light of recent experiments, which appear to demonstrate that a disease in all respects resembling true tuberculosis may be engendered in certain animals by the introduction of foreign and non-tuberculous substances. The only discernible difference between the true and the false tuberculosis is that one is communicable by inoculation and the other is not;* but such a remote refinement of a diagnosis is of little use to the clinician when confronted with an individual case of typical consumption. The distinction between a true and pseudo-tuberculosis, which depends merely upon the transmissibility of the disease, will ever remain beyond the reach of the ordinary medical practitioner.

It is also evident that it is only *certain* animals that may be made tuberculous by inoculation. A course of carefully-conducted experiments made in the Pathological Laboratory of the University of Pennsylvania, last year, by Dr. Robinson,† demonstrated that "well-nourished animals do not become tuberculous, and that no cheesy lump could be produced in them," and also that animals in which cheesy masses were not produced failed to become tubercular. Without pursuing the discussion, it appears that the present state of the question might be formulated as follows:

1. Inoculation with tuberculous products (bacilli?) will produce miliary tuberculosis in certain subjects.

2. Inoculation with products other than tubercular will sometimes produce a (pseudo-?) tuberculosis clinically indistinguishable from the inoculated tubercle.

3. Some individuals are insusceptible to tuberculosis by either experimental method.

It is of interest here to observe that in a microscopical study of the blood of tuberculous patients it has been found that there is marked disintegration of a greater or less number of the white blood-cells, the granular plastic contents of which tend to aggregate in masses in the circulation. Dr. Formad believes that those animals which are the most susceptible to tuberculosis have the smallest lymph-spaces, and in individuals with naturally large lymph-spaces it is difficult or impossible to initiate tuberculosis. Syphilis and scrofula cause in the offspring narrowing of the lymph-spaces, and hence create a special susceptibility to consumption.

* Martin, Revue de Médecine, April, 1882; also Archives de Physiologie, 1881.

† An Experimental Research on Tuberculosis, Medical Times, vol. xii. p. 130.

CONCERNING CLINICAL CONTRIBUTIONS, WISE AND OTHERWISE.

THERE is probably no country in the world where the competition in medical journalism is at all comparable to that which is seen in the United States. It is a curious fact, which will serve to illustrate this, that there are published in Philadelphia nearly as many medical journals as in the whole of England, Ireland, and Scotland. When six hundred thousand is contrasted with thirty millions, the proportion is preposterous, even if Carlyle be right in his assertion as to England's being inhabited by "thirty millions of people, mostly fools." Moreover, even on this side of the Atlantic the crops of fools fail not, be the season wet or dry, cold or hot.

The intensity of the competition affects, of course, the subscription-list; but of this we speak not to-day. It affects also, however, the supply of material for the journal. The printer's devil must be fed; the cupboard is often empty; but the exchange-list is full, and by and by the rage of the printing-press is appeased with its fatness.

Every editor has, however, a horror of resorting to exchanges, and consequently there is apt to be a lively plotting and grubbing to find something which shall appear new, even if it be not new. Under these circumstances, hospital reports and lectures have grown into importance, and that which is the weekly food of a class of students is served up spiced and seasoned so that, if possible, it may sate the palate of the medical gourmand. It is bad enough to think of such commonplaces being published by the ton to vex the soul of the much-suffering Dr. Billings and his index-making assistants; but it is far worse than it appears to be, because lies most foul and misleading are put in the mouths of innocent men. Thus, a well-known medical reporter in this city gets a note or two from some prominent clinician,—or used to do so, for we have not recently followed his career,—sits down to his text-books, and soon fills up his allotted columns with stuff which he thinks the professor ought to have said, if he did not. Under the fertile imagination of this young man, men of repute and knowledge have not only said silly things, but have aided in propagating the most dangerous errors.

Latterly the custom has grown worse. Not long since, we read with open-eyed astonishment a lecture concerning which our memory was blank, but which we were said to have delivered.

As concocted, the lecture was not a bad one at all, and we came to the conclusion that it was preferable to a "romance founded on fact," as many of the reports of lectures really delivered should be headed.

The full remedy for the present state is not easy to see; but one thing is plain,—that every reader should look with grave suspicion upon the report of a lecture in an American journal, unless at least the place of delivery be given, and probably also the reporter's name, and that under no ordinary circumstances in any doubtful or important matter should the report of a lecture be considered as determining the views of the speaker.

Perhaps it is allowable to add that in the *Times* the practice is uniformly adhered to of printing no lecture the manuscript or proofs of which have not been revised or authorized by the lecturer.

HEALTH BOARDS.

THE Provincial Board of Health which was recently established with a view to increased efficiency in the sanitary administration of the province of Ontario has gone actively to work, and shows itself to be in earnest. It has issued a series of notices to municipalities and public bodies calling attention to its own and to their powers in health matters, and freely sent out circulars of information containing valuable advice with reference to contagious diseases. It has also displayed much zeal in seeking and collecting information with regard to local regulations in different districts, concerning details of scavenging and sewerage; and in other ways (not the least of which was sending a representative to Europe with a view of learning from the experience of older boards of health) the board has given earnest of its intention to perform the duties for which it was created.

In the United States there are still a few remaining States neglecting to attend to this obvious duty of securing for their citizens the advantages of some central medical authority, by establishing State boards of health. The list (as given by Dr. Gihon last June) of States still without a State board of health is as follows: Florida, Kansas, Maine, Missouri, Nebraska, Nevada, Ohio, Pennsylvania, and Vermont.

We hope that the Committee on Legislation of our State Medical Society will persevere until Pennsylvania is taken from this list, now growing rapidly smaller. In medical affairs it seems that many that are first shall be last.

LEADING ARTICLES.

THE LETHARGIC, CATALEPTIC, AND SOMNAMBULIC STATE OF HYPNOTISM.

AMONG the most interesting phenomena of life are undoubtedly those which some hysterical persons present when in the so-called somnambulic state. But, contrary to expectation, contrary to former teachings, and contrary to the general belief, it is the sensory system that suffers least: the motor sphere bears the brunt of the malady. In former articles published in the *Philadelphia Medical Times*, written by myself and others, the researches of Czerny, Tschierch, and Charcot were mentioned, and there were also described the investigations and results of metallo-therapeutics and metalloscopy, where, by the external application of certain metals, hemi-anæsthesia or circumscribed anæsthesia, in hystero-epileptics especially, could be caused to disappear momentarily, and then by the internal administration of the same metal be permanently cured. It was further reported, and is now a well-known fact, that in such hystero-epileptic females, and in reality in most hysterics when suffering from any hysterical seizure, one of the ovaries is usually found specially sensitive, and that the epileptiform attack can under such circumstances at any time be induced to take place, if the sensitive ovary is irritated by pressure. But just as the aura of genuine epileptics is a different one in different epileptic persons, starting here in one and there in another, so we find a different sensitive point of irritation in different hystero-epileptic females; but again, just as there are mainly two auræ in common epileptics, one starting from the lower extremities or from a finger, and one starting from the epigastric region, so there are two main points of special sensitiveness in hystero-epileptics, each causing its own special train of symptoms, however,—one, the larynx, producing the known symptom-complex, the common hysterical seizure with spasm of the glottis and the muscles of respiration, globus hystericus, etc., and the other, the ovary, which when irritated calls out the hystero-epileptic seizure.

In former times many of the phenomena of the somnambulic state were well known. We need only to remind our readers of the mesmerism in Vienna, and of the opera "La Sonnambula." But the symptoms were misunderstood, ascribed to supernatural agencies, and fraud and deceit exaggerated them. In our modern times, when the dissecting-knife of the scientific investigator brings to the light what had been hidden and thriving in darkness, all these phenomena find their rational explanation; and it is to a Czerny, a Tschierch, a Charcot, and a Virchow, that we are indebted for the light thrown upon the subject by these researches.

In the beginning of this year, Prof. A. Tamburini and Dr. G. Seppilli published a series of lectures on hystero-epilepsy* and experimental investigations† upon hypnotism. In these they examined all the phenomena in reference to sensation, motion, the circulation and respiration in the hypnotic condition, which were caused by the usual methods for inducing this state; they described also the different functions during waking and during artificial sleep, and showed the alterations which were produced by æsthesiogenetic and thermic irritations. But all these are more or less known now.

Charcot's still later researches‡ have now, however, carried the investigations further, and proved that there exist different phases in each hypnotic condition. He recognizes the *lethargic*, *cataleptic*, and *somnambulic* states. Tamburini and Seppilli had still their very interesting case of hysteria under observation when Charcot's work appeared, and they had occasion to note these phases especially clearly, and could even analyze them better than Charcot was able to do in his cases, regarding the conditions of their cause as well as concerning the differences which in this state befall the different functions. We have studied these experiments and their results with great interest,§ and, as they clear up many hitherto doubtful questions, and give us a clear insight into these strange but instructive phenomena, we will not withhold them from our readers, especially as ours is the first journal in the English language which reports them.

The main point was to determine if these phases are special forms of hypnosis,

* Irrenfreund, XIV., 1882, Heft 2 and 3.
† Anleit. z. exper. Unters. d. Hypnot., Wiesbaden, 1882.
‡ Sur les divers états nerveux déterminés par l'Hypnotisation chez les Hystériques, Le Progrès Médical, 1882.
§ Beitrag. z. experim. Erforsch. d. Hypnot. bei Hyst., vorläufige Mittheilung, direct übertragen v. M. O. Fraenkel an die Allg. Med. Centr. Zeitschr., Aug. 12, 1882.

or only apparent differences, depending upon the same original pathogenic cause. The most exact and sensitive instruments were required; especially, however, the graphic method was employed, and the following results were so far attained:

A. *Application of remedies to cause the different phases of hypnosis, or to arrest them.*

It may be mentioned first, that the main differential points by which the three stages of the hypnosis may be recognized, belong to the motor sphere: viz., for the *lethargic* period, the *neuro-muscular hyperexcitability* (shortening or contraction of muscles on simple mechanical irritation); for the *cataleptic* period, the *plastic flexibility* of the extremities, it being possible to bring the same into any position, and in this they continue for a certain time; for the *somnambulic* period, the state of *general rigidity* of all the muscles is specially characteristic.

I. *A priori*, are caused:

(1) The *lethargic* state by the usual hypnotigenic means, as fixation of the look, passing the hand over the face.

(2) The *cataleptic* state by strong and continuous impressions on hearing and vision, as sudden striking of the tuning-fork or the tom-tom, the electric light, etc.

(3) The *somnambulic* state in some patients by any and all hypnotigenic means.

II. *Secondarily*, are caused:

(1) The *cataleptic* state by (*a*) irritation with light, as sudden opening of the eyes in very bright light; (*b*) irritation of hearing by the tuning-fork; (*c*) irritation of the tactile sense by light and repeated touching of the skin. These means cause the transfer from the lethargic to the cataleptic state.

(2) The *lethargic* state by arrest of the irritations which caused the cataleptic state, as, for instance, closing the eyes, etc.

(3) The *somnambulic* state by pressure upon the upper part of the skull, or by means of strong mechanical irritation after the patient has been placed in the lethargic or cataleptic state.

The transfer of one stage to another may also be induced by one and the same means of irritation, but more strongly applied; so, for instance, from the simply increased muscular irritability of the lethargic period to the cataleptic flexibility, and of this to the somnambulic rigidity by longer duration and stronger application of the mechanical and other irritants of skin, eye, ear, etc.

If during the lethargic hypnosis the irritants, which cause the cataleptic state, are caused to act on one side only,—for instance, opening one eye alone or passing with the fingers or palm of the hand over one-half of the body only,—it is possible to produce synchronously the lethargic state on one, the cataleptic on the other half of the body, a hemi-catalepsia therefore, and a hemi-lethargy.

III. The different phases of hypnosis are arrested by,—

(1) The action of means of irritation, which cause the transfer of one state to another.

(2) The repetition of the same irritant which induced the stage, especially the cataleptic.

(3) The application of thermal irritants. Tepid and cold water, and especially ice, arrest the irritability in all muscles, and this the more rapidly, perfectly, and longer, the more intense and continuous the application; the lower, therefore, the temperature.

Unilateral application of these means arrests the lethargic or cataleptic phenomena alone on the side of the body where it is made.

B. *Signs by which differences in function during the phases of hypnosis may be recognized.*

(1) The *lethargic* state is characterized by the following signs:

(*a*) Regarding *motion*, the so-called neuro-muscular hyperexcitability of Charcot,—*i.e.*, contractility of muscles and irritability of nerve-trunks in a high degree with great disposition to contraction, which latter, however, ceases immediately on irritation of the antagonists; sinew-reflexes of high degree with coaffection of other groups of muscles, inclination to Westphal's paradoxical contraction of muscles; reaction of muscles to æsthesiogenic irritants (magnet), showing itself by diffuse contractions.

(*b*) Regarding *sensation* in *deep* hypnosis, anæsthesia of the skin, and analgesia of the same; ageusia, anosmia; but continuance of function of special senses in hypnosis of lighter degree; reawakening of the senses on one-half of the body if the other half has been placed in the hemi-cataleptic state; permanent hyperæsthesia of the organs of hearing, as also of the ovaries.

(*c*) Regarding *respiration:* deep respirations, more frequent than in the cata-

leptic state; highest sensitiveness to the magnet, which, if brought near the patient, causes profound changes in the respiratory curve (apnœa, very deep inspirations, etc.).

(*d*) Regarding *circulation*, increase of lumen of peripheral vessels (on the lower arm) recognizable by Nosso's plethysmograph and the aërosphygmograph; appearance of undulatory respirations in the pulseline of the hydrosphygmograph.

(2) The *cataleptic* state is characterized by the following signs:

(*a*) Regarding *motion*, total disappearance of the neuro-muscular contractility and of the irritability of the nerve-trunks; waxen flexibility of the extremities; very apparent diminution of the sinew-reflexes and total cessation of their transfer to other groups of muscles; difficult and slow production of paradoxical contractility of muscles; very moderate or totally wanting reaction of muscles to æsthesiogenic impressions (of magnets).

(*b*) Regarding *sensation*, total anæsthesia of the skin to touch, pain, differences in temperature, as well as of all the other special senses. Disappearance of the ovarial hyperæsthesia.

(*c*) Regarding *respiration*, respirations slow and superficial; sometimes an actual stand-still for thirty seconds; bringing the magnet nearer the region of the thorax does not produce any alteration whatever.

(*d*) Regarding *circulation*, decrease of the lumen of the peripheral vessels as shown by the plethysmograph and aërosphygmograph, and no alteration of the curve of the pulse of respiratory undulatory motions in the hydrosphygmograph.

These differences between the lethargic and the cataleptic state are the more apparent if one-half of the body is placed in the hemi-lethargic and the other in the hemi-cataleptic state.

(3) The *somnambulic* state is characterized by,—

The general muscular *rigidity*, which is easily produced and does *not* cease on irritation of the antagonists; the *sinew-reflexes* are normal; frequently *analgesia* is noted. This same condition is observed in certain cases of hysteria immediately, and without the first two stages being necessary; in the so-called *accessoric spontaneous somnambulism of Tamburini*, which may be induced by any of the usual hypnotigenic irritants.

C. *Explanation of the phenomena.*

It has been already mentioned in the beginning of this paper that the differential points of the different phases of hypnosis are based mainly upon phenomena of the motor sphere; so the so-called neuro-muscular hyperexcitability in the lethargic period, with the easily induced contracture, ceasing on irritation of the antagonists; so the remarkable waxen flexibility of the members in the cataleptic state; and the muscular rigidity, *not* ceasing on irritation of the antagonists, in the somnambulic condition. All these different phenomena, if analyzed for their causing element, are in reality nothing else than just so many expressions of the same neuro-muscular irritability, or, what means the same thing, augmented excitability of the central apparatus for muscular innervation.

The writer of this wishes to mention here only an analogy which, if he is not mistaken, was first reported by Eulenburg. We have in *tic convulsif* first a spasm of the muscles provided by the facial nerve. If now the nerve is divided or stretched, there will be at first paralysis of the parts; but later, during the process of healing, we will observe the same symptoms as in some cases of cortical paralysis: tonic and clonic spasms with contractions, and rigidity, will follow.

And, in fact, the contractions and the contractures, which during the lethargic state so easily appear on simple mechanical irritation of muscles or nerves, are nothing else than the natural expression of the neuro-muscular hyperexcitability. Again, catalepsy, which is based upon a weak and prolonged contraction, is nothing else than a weak contracture, and the somnambulic rigidity finally only a stronger contracture, not disappearing on irritation of the antagonists. We have, therefore, only modifications of the muscular tonus, distinguished from each other only by degrees of strength and by duration. And if we now consider the way in which these modifications are produced, we shall find that they correspond exactly to the degree of strength and to the duration of the irritants employed: contraction by quick, mechanical irritation; contracture by one stronger and lasting longer; catalepsy by weak, prolonged irritation of the organs of sight and hearing, etc.

All these different phenomena of the muscular system must, therefore, not be considered as so many different, separate phases,

sharply limited, but simply as different expressions of a fact which is characteristic of the hypnotic state,—viz., of the *increased neuro-muscular excitability;* but the latter shows itself in different forms of muscular activity, according to the degree of strength and duration of the irritants which cause them.

The increased excitability during the hypnotic state does not affect the spinal cord alone, as the centre of the muscular tonus, but also the whole cerebro-spinal axis. Not only the central apparatus of the motor nerves evince during hypnosis increased irritability, but the sensory and psychic centres also, as is shown by the facility with which hallucinations and illusions can be produced in hysterical persons during the state in question.

The recent investigations of Babnoff and Heidenhain* concerning the phenomena of excitation and of inhibition within the motor centres of the cerebrum support this view. In narcotized dogs (in which, as in hypnotized persons, consciousness and will are abolished) a slight touch of any part of the body causes increased (electric) excitability of the corresponding motor-cortical centre of the opposite hemisphere; if the irritation was augmented, the contraction also became greater and *tonic*. These facts go to prove that the peripheral irritants they employed to bring out strongly the different phases of hypnosis simply increased the excitability of the motor centres throughout their length and breadth, and according to the duration and strength of the irritants this excitability showed itself as contraction, catalepsy, and contracture. They also explain to us the unilateral appearance (*phenomena of excitation*) and the unilateral cessation (*inhibitory action*) of these different phases under unilateral application of the respective irritants, the action of which necessarily from the spinal cord has to traverse in a crossed centripetal direction the motor path to the cerebral hemisphere of the opposite side, and from there it is reflected along the same path, but in a centrifugal direction, either as *motor impulse* or as *inhibitory action.*

This theory, which by experimental and clinical proofs has become accurate and positive knowledge, explains to us the more important phenomena of the so-called hypnotic phases. If during the so-called lethargic state the eyes are closed, and the muscles relaxed, the central apparatus are simply in the condition of latent excitability, which finds its expression as soon as we cause, with the aid of a mechanical irritation, contraction or contracture, sinew-reflex or paradoxical contracture; the respiration then is regular, and—a peculiarity of the hypnotic sleep, due to this latent excitability extending to the medulla oblongata—accelerated and deep. But hardly have we induced, with the aid of a weak but longer-continued irritant (light tuning-forks, etc.), a weak contracture (*i.e.*, catalepsy) of all the muscles; these lose the faculty to respond to mechanical and æsthesiogenic irritants, which latter during the lethargic state place them into contraction; but, on the contrary, the extremities in consequence of this loss assume their characteristic flexibility and the faculty of continuing in the position forcibly assumed. The respiratory muscles in consequence of their participation in the general condition of weak contracture cannot perform their regular motions so necessary for respiration; the latter therefore becomes slow and superficial, and apnœa is often noticed.

The narrowing of the peripheral vessels at the beginning of the cataleptic state can, according to Tamburini and Sappilli,† be looked at as a reflex of the blood-vessels, caused by the same irritant (touch-, sight-, hearing-, and sensibility-irritant) which induces the transfer from the lethargic state to the cataleptic. This reflex resembles almost the one which in normal sleep is produced by peripheral irritation, and here, according to Mosso, in consequence of increased flow of blood to the brain. Which rôle here the vaso-motor nervous system plays can be imagined, if we remember the symptoms caused by the great ganglia of this nerve when irritated. The same holds good concerning the relaxation following the irritation. The general widening of the lumen of the vessels on return to the lethargic state may be looked upon as a consequence of the cessation of irritation,—*i.e.*, a natural sequence of the re-establishment of the circulatory equilibrium.

As a *résumé* of the whole, we may recapitulate:

Hysterical persons may be brought by certain irritants into a hypnotic state. The latter consists in an increased neuro-muscular excitability of the cerebro-spinal

* Vide Pflüger's Archiv, 1881.

† Loc. cit.

axis. According to the degree of strength and to the duration of application of these irritants, such persons can be brought into the lethargic, cataleptic, or somnambulic state of hypnosis, but these are not different, sharply-defined phases of the same malady, but simply expressions, differing in degree, of the same increased neuro-muscular excitability, and depending totally upon the different strength and length of duration in the application of the irritants causing them. The functions of the excito-motor as well as of the inhibitory centres of the brain are hyperactive, and travel along the usual cross-paths. There is now nothing supernatural or unexplained in these phenomena; the only uncertain point is the anatomical condition of the centres; but we may suppose that the lesion simply consists in a congestion of the parts, transient in character.

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LONDON LETTER.

MY last letter gave a brief account of the recent jubilee meeting of the British Medical Association, held at Worcester, the city of its birth. In it occurred an allusion to the proposed weekly journal for the American Medical Association, which Prof. Lewis Sayre seems to think is so much to be desired. As others may share his opinion, it may not be out of place for me to give some account of how things stand at present with our Association and its journal, after fifty years of existence for the former. At first the Association had merely Transactions, out of which grew, in time, the *British Medical Journal, being the journal of the British Medical Association*, at the present time *edited for the Association by Ernest Hart*. Mr. Sayre, indeed, seems even more captivated with our editor than our journal, to judge from his remarks, which appeared at some length in our journal recently, —indeed, in the number immediately preceding our jubilee meeting. It is there pointed out carefully that the wisest measure to adopt is the appointment of an editor "for an indefinite term, the engagement to be dissolved by either party only upon three months' notice," allowing the editor the right of appeal, if he chooses. To whom he may appeal does not appear. Now, our editor holds his office for an indefinite period, on three months' notice, per agreement; but opinions differ as to whether this indefinite tenure of office is so specially desirable. How often the three months' notice, like a sword drawn out of its scabbard, is brandished over his head is known only to those immediately concerned therein. Some of us are inclined to hold that a fixed term, permitting of re-election if thought desirable, is an alteration which would also be an amendment. The American difficulty seems to be "the selection of a suitable man as editor," and this they will find to be their difficulty from first to last. The editor, it appears, must be a scholar, a gentleman of profound personal knowledge of every part of the United States of America, and of the requirements of each; of moral worth beyond the possibility of any taint of bias or corruption; capable of all good, and incapable of any weakness, whether wickedness or folly; in fact, a man not likely to be found upon earth until the millennium has been established two or three hundred years at least, and therefore not likely to interest the present generation very much, despite the growing average length of life. If this elaborate description of the qualities of an ideal editor was meant in satire upon our editor, it was cruel, to say the least of it. That he is a journalist of more than average ability is not questioned even by those who do not admire him all along the line. But an ideal editor is one of those things of which the supply is not equal to the demand. At the same time, though England may be growing old, she is not yet so infirm that there is only one man within her four seas who can edit successfully the journal of the British Medical Association, as some of its members seem seriously to believe. When you have captured this ideal editor, it is proposed that his salary should commence at twelve hundred pounds per annum, out of which sum he shall pay his sub-editors. It does not state whether the editor is to draw, in addition, the usual remuneration for all contributions, and allow the sub-editors to do likewise; but if this is not the case, I venture to think there will be either no applications for the post, or the candidates will fall a good way short of the "ideal" craved after. This wish on the part of a certain section on your side of the water to start a weekly journal in close imitation of ours is evidently acceptable flattery to our editor and others who believe they have "successfully carried on the affairs of the Association," from the full report in our journal. The only question at issue here is, "Are the affairs of the Association carried on satisfactorily?" That is just the rub! Those who are conversant with the internal state of our Association could tell Prof. Sayre that it is at the present time just seething with dissatisfaction,—with notices about the relations of the Association with homœopaths, about reports of branch meetings being delayed and shoved into small type, about the constitution of the Journal Committee or that of the Parliamentary Bills

Committee, about the term of office for the editor,—thick as blackberries in autumn. We are not at present a happy united family, and perhaps it may be well for our enthusiastic admirers in the United States of America to know something of the other side of our Association than that roseate view they may see presented to them in the pages of our journal. The President, in his address at Worcester, said, "Our Association must have a future as well as a past history;" and he had his doubts as to what it might be, for he continues, "Either our Association will become a body nearly coextensive with the profession itself, —a mere name, in other words, for medical men, with a journal, perhaps, as its organ of speech, and nothing else; or it must become a great but select Society, every member of which must conform himself to its fundamental rules and motto." Yet his cry, as well as that heard everywhere else, is for "new blood" in its executive. He hinted at changes to be brought about, and went on, "When the Consultative Council of our Association shall have become in fact, as it is now in theory, really and perfectly representative by the more intimate communion with the Branches;" a sentence which is suggestive that all is not as perfect as it might be.

Just let us see what one of the present ruling bodies—which the President states is not "in fact, as it is in theory, really representative"—chose to do at this jubilee meeting. A reform in the constitution of the Journal and Finance Committee was proposed, when the President of Council—the chief bashaw—urged, "Would they, as sensible men, desire to change the committee every three years, and intrust the work to those who perhaps had not given it a thought?" Would "sensible men" be likely to intrust important work to men who had given no thought to the matter? or would men who had any self-respect engage on a duty for which they were consciously unfit, in the sense of being unprepared? Such *ex parte* pleading, such begging the question all through, that nothing can be so good as that which already is, met a fitting response in a slight modification of the motion; and these "sensible men" decided that some "new blood" was desirable, by voting that three members of this committee retire annually and be not eligible for re-election for two years. In other words, the Association, in general meeting, declared that it was not satisfied with the present committee and its doings, and that some change was called for. The President evidently gauged the present state of affairs correctly when he stated that the present Council was not really representative. Then, again, when a request was made, signed by fifty members, according to the original articles of the Association, what happened? According to the articles,—"upon the receipt of such a requisition, the Committee of Council shall forthwith proceed to convene a general meeting." The President said that, for the well-being of the Association, "every member must conform himself to its fundamental rules;" and if the Association has any fundamental rules, surely they are "The Articles of the Association" laid down by the founders of it. The published decision of the ruling powers was that, instead of such extraordinary general meeting, "a sitting of the Public Health Section will be especially set aside for that purpose;" but the men who headed the movement against "the compulsory notification of infectious disease by the medical attendant" stood their ground, and the matter was carried ultimately to a general meeting. But of that anon. Why the Committee of Council did not set the desirable example of loyally obeying their "fundamental rules" is best known to themselves.

That the management of the Association might drift into the hands of a clique, or be usurped by a knot of adventurous spirits, was not only foreseen by the original founders, but they provided safeguards against such contingency. No By-Law shall be altered except in general meeting at the annual gathering, and then only after two months' notice. If its affairs get entangled, the Association at large has only itself to blame. Humanity has its foibles, and one of them undoubtedly is this,—persons in power like to use it and to keep it. That is one of the little ways of this world all round it. And, further, the said "powers that be" believe that nothing could be better than their own doings, whatever other people may think on the subject. An oligarchy has an inherent tendency to become a mutual admiration society. It would be surprising, were humanity constituted otherwise, how it could happen that the Association is writhing with dissatisfaction and unrest under management which believes itself to be faultless perfection, and which excites a spirit of emulation in the bosoms of some of your chiefs. That phœnix of an editor may possibly be found by Prof. Sayre; but that is not itself all that is requisite. All shortcomings, all iniquities, all acts of omission and commission; cannot be laid at the editor's door! An editor may be all that is desired,—able, disinterested, most wishful to follow a distinct course; but how about the pressure to which he may be subjected? Amidst the ruling oligarchy may be sundry individuals whose wishes cannot be disregarded, even when they ought properly to be ignored, and who can bring a leverage to bear upon the editor which will affect him, even though he be as steady as a rock. How would Lewis Sayre undertake to provide against a contingency of that kind? What guarantee would your "Admirable Crichton" of an editor (when you had secured him) have that even among those select spirits who appoint him there might not be some who might seek to utilize him and the journal in their own interests from time

to time? Even the little knot of apostles had its Judas Iscariot,—the one so trusted that he carried the bag! Then, when an editor's ability becomes admitted, the temptation to push himself naturally follows. What is to prevent him from becoming ubiquitous? He can be very useful, no doubt. Now, besides his official position as the paid officer of the Association, our editor is (1) one of the Council of the Metropolitan Branch, (2) one of the Medical Reform Committee, (3) a member of the Joint Committee of the British Medical and Social Science Associations, while he is (4) the Honorary Secretary of the Scientific Grants Committee, and, further, (5) he is the Chairman of the Parliamentary Bills Committee. Everywhere, whether as editor or in some other capacity, the present editor can make himself felt. Nothing, almost, can go on in the Association without his finger being on the pulse of the movement, while of course his word, as editor, can be for or against anything; and both he and others are aware of this fact. Whether your admirers of our existing state of matters would wish to copy this particular item or to avoid it in their arrangements is best known to themselves.

A little tale, which carries some instruction with it, may now be related for the guidance of Prof. Sayre & Co. The Parliamentary Bills Committee was founded "to watch all bills affecting medical interests before Parliament, and to take action to support or oppose them as they may be considered by the medical profession at large to advance or assist medical interests, or, on the other hand, be injurious to them;" and of this committee our editor is chairman. How far this committee has been loyal to the trust reposed in it may be conjectured from a pamphlet issued recently by Dr. Carter, of Liverpool, who opened the discussion on the Notification of Infectious Disease at the last general meeting, on the Friday morning, at Worcester. From this it would appear that their idea of maintaining the honor and dignity of the medical profession was compatible with their advocating the *compulsory* notification of all infectious disease by the medical attendant, under "a penalty of ten pounds for an act of omission." The natural objection of the medical profession to this scheme was designated "extreme sensitiveness." Of course the offending medical man must obey the old legal dictum, and "pay in purse or in person,"—*i.e.*, if he objected to pay the fine, he had the alternative of going to prison. The committee, it seems, even went the length of offering its services to sanitary authorities seeking acts, with this "model clause," which, it is said, was suggested by "the chairman's report." Dr. Carter indignantly writes, "And forthwith, without the sanction of any higher authority, without a word of assent, this committee *did* distribute the report, and *did* offer their assistance to sanitary authorities through the country in their efforts to impose fine, and, in the last resort, something worse, on the entire body of general practitioners, if they should decline to do what most of them thought it would be wrong to do." The committee went on its way, but at this point the profession began to think it was high time to be stirring in the matter. Ireland had a plébiscite on the subject, and by an overwhelming majority gave an emphatic negative to the objectionable proposition. England is now at large. Dr. Carter writes, "Within the last three or four weeks only, without any extra effort being made, without the issue of a single advertisement, hundreds of medical men—indeed, hundreds upon hundreds of members of this Association—have united themselves into a distinct society, having for its object to resist the attempts to fetter them with penal legislation that are persistently made by this committee, which affects to represent them, acting through the medium of a journal which is supported by their moneys." Compulsory notification of infectious disease is highly desirable; on that all are agreed. But the medical profession does not see that it follows that it should be made the instrument of the sanitary authorities. Such a scheme of making them part of the State police would have been objectionable enough if suggested by some lay member of Parliament; but that it should be the device proposed by the editor of their own journal, acting as the chairman of the committee founded to watch over the interests of the profession, was simply intolerable to that profession, and especially to the general practitioners who were threatened by this "model clause." Squabbles might go on in the general meetings of the Association, which helped to enliven the tedium of their ceremonial formalities, but the general practitioner was indifferent about them, or took but a languid interest in them. He came up to attend the annual meeting for a holiday, to combine recreation with the seeing and hearing of what was going on; but it could scarcely be expected that he was to be bothered by taking any part in the squabbles going on. But a plan had at last been hit upon, however free from design in that direction, which did rouse his attention. As soon as ever his own particular corn began to feel a pinch, then he began to waken up to the fact that, after all, the great bulk of the Association did consist of provincial practitioners. Schemes might be set on foot in London to utilize him, but he was going to have a word to say himself now, when the matter in dispute came home to him and he found out that he was being taken care of by his guardians in a manner which was not acceptable to him. So the first skirmish came off at the last general meeting. Dr. Carter led the attack, followed by Dr. Whittle, of Liverpool, who held up a petition, signed by several hundreds of Irish medical

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men, against the action of the committee. Dr. Littlejohn, the well-known police-surgeon of Edinburgh, then told how the compulsory notification of disease worked in that city, and proposed an amendment to allow the Parliamentary Bills Committee to go on as before. Dr. Alfred Carpenter, of Croydon, thought the householder the proper person to notify the sanitary authorities. Mr. Hastings, M.P. (son of the late Sir Charles Hastings, founder of the Association), explained that compulsory notification by the medical attendant did away with any objection the householder might entertain to the sanitary authorities' being informed of the existence of infectious disease in his dwelling, and so really protected the medical man; and with this view he adopted such compulsory notification of disease in the bill he proposed to bring before Parliament. If the medical man had no choice, he must act. Dr. Fitzpatrick, of Liverpool, pointed out how, if all medical officers of health were fac-similes of Dr. Littlejohn, enjoying well-won reputations, and holding independent positions, not being engaged in practice, the objections to the scheme would fall through; but where the conditions were totally different these objections were valid enough. The debate was able and earnest on both sides. If the action of the Parliamentary Bills Committee was condemned, it was not without their having a hearing, and, indeed, being eloquently defended. The plan which worked well in Edinburgh may not be so well adapted for the rural communities at large. The verdict was, on Dr. Mahomed's amendment, that "the compulsion to notify" should lie with the householder, and not with the medical man. The action of the Parliamentary Bills Committee was repudiated by the profession, as tested by the British Medical Association in general meeting assembled. The policy pursued for some time past was condemned and practically censured by this vote. The chairman of the committee then brought forward its report. "The vote which had just been passed by the members of the Association gave to the committee a new instruction, which he could promise would be carried out as loyally as previous instructions had been, so far as they were understood." This was a pleasant way of putting it; a "new instruction" was a euphonious phrase for what to most minds would be a clear vote of censure on the conduct of the committee in the past. The instructions would be carried out loyally, like others, "so far as they were understood." That was a saving clause which had a monstrously ominous sound about it.

The new Association, which has been called into being on the *quis custodiet custodes* principle, will do well to keep up a keen outlook, and be prepared to strike promptly, if required. The history of the past does not contain much promise or afford much assurance as to the future. The Parliamentary Bills Committee took up its "model clause" without consulting the profession. It went on with it when it had been negatived by such of the profession as spoke out. Now that the British Medical Association has declared its mind, we shall see what will follow,—what will next be done.

This is an instructive little anecdote for those who desire to assimilate the working of the American Medical Association to the executive of our own, especially in relation to an indefinite term of office for the editor, and they will do well to take it to heart and ponder over it. They perhaps may find that their phœnix of an editor may become practically their master, and that if they do not profit by this lesson their arrangements may drift into a condition calling imperatively for energetic action. I said to Dr. Carter, "You will either *mend* the Association, or you will *rend* it." He honestly hopes to mend it, and the best hopes of all its well-wishers go with him. That the management of the Association needs mending (despite the confident belief of the President of Council) in the existing executive is clear. Nevertheless, the other possibility is something more than a mere shadow. The campaign is begun only, not concluded yet. The issue of the present complications must be awaited before any conclusions can be drawn. This is the first time in the history of our Association when its members have risen in successful revolt against its leaders. What the next move will be remains with the latter. Their conduct will determine that of the new protective association. Like the French political leader, the Chairman will have, probably, to *soumettre* or *démettre* himself, or perhaps himself and the Parliamentary Bills Committee bodily; or, if they can hold their own, a secession on a large scale from the present Association may be looked for as not impossible. If Prof. Sayre and those who think with him are open to a word of advice from one who has no other than good wishes for the medical profession in the United States of America, it would be to the effect that they will be wise in maintaining an attitude purely expectant at present, and watching the course of events here attentively before they commit themselves to any positive action. The British Medical Association is a body of great numerical strength (so large, indeed, as perhaps to be growing unwieldy); but whether it possesses enough of cohesion to deliver itself from its rulers is yet uncertain, to say nothing of its exercising any influence outside itself. That it has done some service in the past may not be denied; but there are many, from the present President downwards, who feel some questionings as to what its future history will be. One thing is quite clear: the great body of the members must be induced to take an active interest in its working. Otherwise, of course, a small body will secure the editor, get the

reins into their hands, and carry the Association with them, except when some burning question rouses a spirit of activity. We are passing through a crisis in our history; and your Association might wait and look on at present, without feeling that it is wasting time.

J. MILNER FOTHERGILL.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting of the Society was held on Wednesday evening, September 13, President Horace Y. Evans in the chair. Dr. Wm. B. Atkinson read a paper on "The Prevention and Treatment of Vomiting in Pregnancy." (See page 1.)

DISCUSSION UPON VOMITING IN PREGNANCY.

Dr. O'Hara said that the list of medicines was large, but he would add one more, as a medical friend, whose business is largely composed of cases of lying-in, stated that in every case of sickness of pregnancy he has failed in everything but the use of lager beer. As to himself, he has relied on infusion of calumba, but he thinks nothing is of special service,—that it is somewhat of a necessary evil attendant upon the condition, and will adjust itself. A similar ailment is the salivation of pregnancy. In one case of a person becoming pregnant in advanced years, it was almost alarming, but disappeared of itself in about six months' time. In this case nothing would relieve the copious flow of saliva.

He would like to have seen the pathology of the affection more closely gone into. In mild cases of vomiting of pregnancy, nervous disturbance, due to altered condition of blood and to local irritation, was frequently present. But from the similar clinical symptoms in curable cases of Bright's disease of the kidney, he feared that there was a groundwork of trouble in the kidney, and he desired to ask the experience of those present whether severe and inveterate cases were not generally accompanied with renal trouble.

Dr. Hewson had seen great benefit from the application of tincture of eucalyptus to the os uteri. He did not agree with Dr. Atkinson as to the use of morphia, as it was apt to aggravate the symptoms on the following day. Tincture of avena sativa, fifteen to twenty drops, at bedtime, had succeeded frequently when administered *per orem*, even in violent cases, and more so than any other remedy in his hands.

Dr. Albert H. Smith expressed himself as much interested in the important subject of the paper, but had expected it to contain some discussion of the pathology of the affection. Upon such knowledge, in this as in all other affections, rational treatment could alone be based. He had long regarded the affection as one of the neuroses of pregnancy, and not as arising from disordered condition of the stomach or bowels. The condition was not one of dyspepsia, for cases of the most violent type occur with no evidence of inflammatory or other gastric trouble, except the mere nausea. As confirmatory of its neurotic origin is the fact that it is almost exclusively observed while the uterus is a *pelvic* tumor, during the first three and a half months of pregnancy, while it is dragging upon the hypogastric plexus and disturbing its relations: when the uterus rises above the pelvic brim, and becomes an abdominal tumor, the nausea is relieved in a large proportion of cases. In the vast list of remedies enumerated in the paper just read we observe that most of them are such as are applicable to neurotic and not to gastric disease. The hygienic and mental treatment is also confirmatory of this view. Dr. Smith thought highly of Dr. Meigs's method of requiring the patient to rise early, take a cup of coffee, and follow it by a short walk. Many patients will feel afraid that they will vomit in the street; but this never occurs. The mental and moral effect of the patient being out in the street among people and with diverting objects around is very effective. The inhalation of oxygen probably acts similarly,—it gives a new and unaccustomed sensation and breaks up the train of nervous impulses. With Dr. Atkinson, he condemned the use of dilatation as dangerous. Abortion also was dangerous, and not justifiable from the clinical experience of the highest authorities. Sometimes the kidney is diseased, and this is found to be so in many cases when the condition is intractable. Dr. Smith had found sodium bromide the best remedy: he had seen it succeed when in former pregnancies everything had failed. He gave it in doses of two or three drachms daily, reducing afterwards to fifteen grains. When the remedy was stopped the nausea might return. When sodium bromide failed after a fair trial, examination had generally revealed a granular os uteri, and cauterization would be necessary in such cases. Rectal alimentation was often highly appropriate in obstinate cases. He had used it with success in one case for several months.

Dr. Parish said that many of the milder cases required no special treatment. The more violent forms occurring in pregnancy are generally associated with pathological conditions of the uterus; but not always, because ulcer of the stomach occurs during the course of pregnancy, as also does heart, brain, or kidney disease, and would give rise to vomiting. Generally, however, the bad cases are associated with such troubles as hyperæmia of cervix, anteflexion, retroflexion, etc., ante-

or retroversion, or simply prolapse. We may have merely cervical congestion, with or without erosion. When uterine troubles are recognized, the line of treatment is very plain: relieve the uterine condition. Dr. Atkinson, he thought, did not refer to local depletion of the cervix. Leeches were not suitable for this, but he had used the bistoury with much success. Silver nitrate might be used after the incision,—even the solid stick, if carried lightly over the os tincæ. One case which he treated in this way had been cured. It was important to note that in most cases of obstinate vomiting in pregnancy, obstinate constipation is a frequent symptom. In one case the bowels were unmoved for two weeks. No displacement of the uterus or other mechanical obstruction existed. The bowels were finally opened by the use of resina podophylli, in powder, placed in small quantities upon the tongue and allowed to dissolve. Conditions of constipation will of themselves cause or keep up the vomiting, and must be attended to. Dr. Parish agreed with other speakers in disapproving of abortion.

Dr. Ranck recalled a case which had been under his charge, in which the vomiting and constipation had been very obstinate and had resisted many remedies. Finally, the buckthorn (*rhamnus catharticus*) was used with success. The constipation was broken up and the vomiting ceased.

Dr. Horace Y. Evans was disposed to associate the vomiting in pregnancy with sea-sickness, both being of reflex origin. He recalled four cases of obstinate vomiting which he had seen on shipboard, two in pregnant women, two in women not pregnant. None of the patients had been sick until they got to sea, and they continued sick with similar symptoms until they again reached land. The treatment he usually adopted was simple, and resembled that which he adopted in sea-sickness. He placed the patient on the back and bandaged the abdomen tightly, even including the thorax. He rarely used rectal alimentation.

Dr. Wm. T. Taylor said that he had tried a great variety of remedies, including oxalate of cerium, pepsin, bicarbonate of soda, morphia, bromide of sodium, and one-drop doses of wine of ipecac every hour, etc., but in his hands only one method had been successful. This was the use of bicarbonate of potassa with fresh lemon-juice, given in mixture every half-hour, *whilst effervescing*, and an injection of one drachm of the bromide of potassium in half an ounce of water at bedtime.

Dr. Wittig pointed out that vomiting during pregnancy was not always due to the individual uterine condition, but may also be caused idiopathically by direct lesions of the stomach. The disorder must then be treated, correspondingly to the local affection and the general nervous irritation, by the administration of the neutral mixture and bitter-almond water, or extract of hyoscyamus, perhaps with potassium nitrate; when the case is rather inflammatory, cold or warm applications to the stomach, etc. If the case, on the contrary, is owing to a greater uterine irritability from congestion or inflammation of the implicated parts, or from general debility, the treatment must endeavor to relieve the hyperæmic condition and support the constitution. In general, the administration of diluted sulphuric acid, together with tinct. ambræ, is extensively used in Germany in the cases not attended with uterine congestion. In prolonged cases we may apply mercurial ointment, with ol. hyoscyami sem., wet compresses, or leeches, to the region of the ovaries; while in cases of general irritability and debility, tinct. ferri acet. æther, with a few drops of tinct. vanilla or creasote, with sulphuric ether, are most beneficial.

Dr. Shelly said that his experience in these cases related only to the use of ingluvin, which he had originally brought to the notice of the profession, and had used for thirty-two years, although it had not been used by physicians generally until within a few years. In his judgment, it was, if used properly, just as much a specific as quinine in intermittent fever. It should be administered before meals, and it was necessary in obstinate cases to give it before rising in the morning. The result with this remedy shows that the cause is not necessarily a local one only; he is satisfied that in a large majority it is neuropathic. The *modus operandi* of ingluvin was not as yet explained, but in his experience it acted as a tonic and soothing remedy on the mucous membrane of the stomach and bowels, and also as a nervine.

He also used it in cholera infantum and cholera morbus, with good results. It was one of the best remedies in dyspepsia, and in all forms of nausea and vomiting.

Failures which physicians had experienced with the remedy were entirely due to the improper preparation of it. Druggists often sold an article prepared by themselves in an imperfect way, as the process of manufacture is difficult and requires the aid of machinery. No one should use ingluvin unless satisfied that he has a good sample. He felt sure that a fair trial with the remedy would place it above all others. He remarked that very large doses were unnecessary.

Prof. Henry H. Smith thought that the great question to be studied was, What is the pathology of the disorder? Only by answering this could rational treatment be secured. The long list of remedies mentioned by Dr. Atkinson served to show that in most instances physicians were guided by the symptomatology and not the pathology of the affection. We must also make a distinction between cases which have different characters and require different remedies. To illustrate by example: neuralgia in its simpler forms might be treated

by local and simple application; but if it were dependent upon malaria or dental disease, the proper treatment would be addressed to these causes. So in the vomiting of pregnancy, the milder cases might yield to treatment addressed to the stomach; but a vaginal examination should always be made, and if cervical congestion or erosion was found, we should treat this condition. The application of a strong solution of silver nitrate (60 grains to f℥j of water) by means of a camel's-hair pencil was recommended in cases of so-called ulcer of the os, and half that strength in marked congestion.

Dr. Mills had found cerium oxalate and potassium bromide the best remedies in light cases. Some years ago he had presented to the Society the result of clinical study of the former remedy. In regard to the pathology, it must be noted that in the fourth ventricle is a point which when irritated will cause vomiting. The vomiting of pregnancy is probably a cerebral, not a spinal reflex, the arc including the pneumogastric. As to the cases in which the husband was affected with vomiting during the pregnancy of the wife, although such occurrence might seem absurd, he had at least two instances in his own experience. Such cases are due to powerful cerebral impressions. As bearing upon the pathology of the vomiting, he referred to a case of tumor of the cerebellum pressing upon the fourth ventricle. This case was the most persistent one of vomiting that he had ever seen. Nothing controlled it but a strong current of electricity to the limbs. The patient was relieved for a time, but relapsed and died.

According to the intensity of the peripheral irritation would be the intensity of the cerebral response. When the uterus is in the pelvis it drags with more force upon the pelvic nerves. This would account for the fact pointed out by Dr. A. H. Smith, that the vomiting generally abated when the uterus became an abdominal tumor.

Dr. Hamilton said it was apparent that little was known of a special successful treatment. He had failed in many cases. Brandy, alone or mixed with a drop of creasote, was at times useful. He made it a custom to inquire whether patients had special preferences for certain remedies, and used such only as were most agreeable to the stomach. He would like to inquire of those who had large experience in the matter whether the most frequent and severe vomiting did not usually occur in the first pregnancy. Many of the cases he had seen had been in young women in the finest physical condition, and he believed the trouble was essentially nervous and only to a limited extent dependent upon congestion, inflammation, or ulceration of the neck of the uterus.

Dr. Eskridge thought that if the original irritation was carried up to the brain, and returned by the pneumogastric, it should affect the liver, kidneys, and other organs, as well as the stomach. In some cases of the most violent vomiting he had found no other organ disturbed at first. Even the heart was entirely normal. Of course, various organs are affected in pregnancy, but most of them secondarily, the stomach seeming to bear the brunt early in gestation. The rule of reflex action was, the greater the irritation, the more extensive the reflex. He thought that the anæmic element in these cases had been overlooked. He had found Dr. Meigs's plan of taking a short walk before breakfast good not only for the vomiting of pregnancy, but in other cases of stomach-irritation not attended by organic change.

Dr. Albert H. Smith said that the stomach is not by any means the only organ affected in pregnancy. The heart-troubles of pregnancy are well known: Angus Macdonald has written a valuable monogram on the subject. We see also liver-troubles, albuminous urine, etc. He did not agree with the view that the uterus is always diseased in the violent cases, but rather confirmed Dr. Hamilton's statement that he had seen most violent cases in women in the best of health. In many cases the vomiting had been severe in first pregnancies in perfectly healthy women, and less so in later ones, although in the interval the uterus had become the seat of disease. Further, if uterine disease were the cause, why should the trouble so generally cease when the uterus becomes an abdominal tumor?

There is no doubt, however, that chronic inflammation of the cervix, with erosion of the mucous membrane, aggravates the condition, and in such cases treatment applied to the cervical lesion is very useful and often necessary. That this peculiar condition is connected with changes in the cervix very largely may be accepted as a fact; but that those changes are mainly physiological must also be accepted.

Dr. Eskridge said that he was aware not only that heart-disturbances were often associated with pregnancy, but that the subject had received the attention of a special treatise; but it must be noted that Macdonald had in that treatise advocated the view that such heart-troubles were anæmic in origin, and not the result merely of reflex action from the pregnant womb.

NEW YORK PATHOLOGICAL SOCIETY.

REGULAR MEETING, SEPTEMBER 13, 1882.

DR. E. C. SEGUIN, President, in the chair.

ABSCESS OF THE LIVER IN A CHILD.

DR. G. M. SWIFT presented the specimen, which was removed at the New York Foundling Asylum from a child æt. 2 years and 10 months. The nurse said the child had been well until February last, when it took scarlet fever and diphtheria. From these

affections it made a fair recovery, and remained well until about the 20th of August, at which time it was treated for entero-colitis until September 4. It was then brought to the asylum in a state of collapse. The respirations were thirty-two, the pulse was too frequent to be counted. There was an effusion in the right pleural cavity. The liver seemed to be enlarged, but it was thought this might be due to displacement by the pleuritic effusion. The child died a few hours later, and an autopsy was made next morning, when a large amount of serous fluid containing fibrinous pus was found in the abdominal cavity; the liver was enlarged, yellow in color, and streaked with white spots. Near the diaphragm there was an abscess of the liver, containing quite a large amount of pus, and occupying nearly the entire extent of the right lobe. The liver and the spleen were attached to the diaphragm. The right pleural cavity was about two-thirds full of sero-fibrinous pus. There were some adhesions between the lung and the pleura. The kidneys were normal. The intestines could not easily be examined under the circumstances. Dr. Swift had found the record of but one like case. He said Dr. Delafield had seen no such case in so young a subject.

A specimen of

NECROSIS OF THE LOWER JAW

was presented by Dr. A. C. POST. It was removed from a patient about ten days ago, and was somewhat interesting with regard to the etiology of the affection. About two years ago the patient had a bicuspid tooth extracted from the lower jaw, but, as it broke, a considerable portion of the tooth was left behind. He had no trouble with it until eighteen or twenty months afterwards, when he began to suffer from inflammation about the jaw, and not long afterwards an abscess opened and these specimens of bone came away. The parts healed well after the remaining fragment of tooth had been removed.

Dr. Post also presented a specimen of

OMENTUM FROM A STRANGULATED FEMORAL HERNIA,

which was removed a fortnight ago from a woman about 60 years of age. She had had a tumor in the groin a good while, but it had given her no trouble until over two weeks ago. At that time the tumor increased in size, became painful and tender on pressure; she vomited, the matter afterwards becoming stercoraceous. No food could be taken. The vomiting continued after she entered the Presbyterian Hospital, three days later. Dr. Post found the trouble to be a strangulated hernia, and advised immediate operation, but consent could not be obtained until the next morning. He was not positive whether it were an inguinal or a femoral hernia, most of the mass being above Poupart's ligament; but on cutting down upon it, it proved to be the latter. A small knuckle of intestine was found, shielded by omentum from great pressure by the hard edge of the femoral ring. The intestine was reduced, a part of the omentum was cut away, the edges of the wound were brought carefully together, a carbolized solution was used, and the patient was now doing well, scarcely an unfavorable symptom having arisen since the operation. The temperature was slightly elevated for two days, and on the third day it rose to 103°, at which time there was supposed to be some intestinal irritation, but since then it had been about normal, and the wound had healed mainly by first intention. The movements from the bowels were natural. Dr. Post considered it safest always to cut away a portion of the omentum if it were found adherent or much thickened.

Dr. C. HEITZMANN presented a specimen illustrative of

THE HEALING PROCESS OF FRACTURED BONES.

Ten years ago he had made a number of experiments on animals, in order to study the healing process of fractured bones. Since then he had examined the broken humeri of two children, one two weeks and the other four weeks after the injury. There was full coincidence with the specimens obtained from the animals. There was deviation of the broken ends of bone, but no external injury. He had not yet studied how the healing goes on when the periosteum is unbroken. Immediately after the injury hemorrhage is present, and blood fills the cavity between the broken ends. Beginning with the second day, inflammation sets in, most intense in those tissues which are most abundantly supplied with blood-vessels, namely, the periosteum and the muscles. The injured bone shares in the inflammation, as a rule, only in a limited degree. The inflammation results in the formation of a medullary tissue, which towards the end of the second week after the fracture leads to the formation of cartilaginous tissue, establishing the provisional callus of Dupuytren. The cartilage is partly hyaline, partly striated, and holds plastids with coarse granules, or compact and shining, due to an active increase in the living matter. The cartilage-tissue breaks down in the third week, in a number of foci, into medullary tissue again, which, owing to an active new formation of blood-corpuscles and blood-vessels, is freely vascularized. From this secondary medullary tissue at length arises bone tissue, representing the definitive callus of Dupuytren. The newly-formed bone tissue is at first of the cancellous variety, therefore imperfect, while later, by repeated new formations of medullary tissue, the cancellous structure is replaced by regular compact bone. The healing, after months or years, is so per-

fect, that were it not for the deviation of the fractured ends no trace of the former injury would be visible. He would emphasize the fact that the healing process of fractured bones is identical in every respect with the normal process of formation of bone.

REPORT OF THE MICROSCOPICAL COMMITTEE.

Dr. A. R. ROBINSON reported on a specimen of nasal polypus. It was an ordinary myxomatous tumor.

Dr. WYETH presented a specimen of

ANEURISM OF THE RIGHT SUBCLAVIAN ARTERY.

In June last he presented a specimen removed from a patient who had an immense abscess on the back, due to necrosis of the last cervical and first two dorsal vertebræ. He knew not at the time what was the cause of the necrosis. Returning to the hospital yesterday, he found that the patient had died the day before from rupture of a small aneurism of the right subclavian artery, which had developed deep down under the first and second ribs. Doubtless the necrosis of the spinous processes of the vertebræ was secondary to necrosis of these ribs. The patient had been examined carefully by Dr. Wyeth, by the house staff of the hospital, and by others of the visiting physicians, and there had not been the least suspicion or sign of an aneurism. There was solidification of the upper part of both lungs, as had been previously diagnosticated.

Dr. POST said he had had several cases of aneurism under his care in which no pulsation could be distinguished at certain periods, during which the existence of aneurism was doubted. The first case occurred many years ago in the New York Hospital. The patient had a large swelling in one inguinal region, and when he came under his care he could distinguish pulsation. The tumor was flatter and less prominent than aneurismal tumors usually are, but pulsation was quite distinct. The case remained under observation for some time, and finally pulsation ceased altogether. It was then submitted to a consultation of the surgeons of the hospital, and examined by leading auscultators of the city, and none could detect pulsation, and doubt was expressed as to the existence of aneurism. The patient suffered great pain, and the question was whether there was aneurism or deep-seated abscess. After consultation, he made an exploratory incision, cutting carefully layer after layer, until he came to coagulated blood, when he ceased. Within twenty-four hours there was a gush of arterial blood, and he cut down and tied the iliac artery. The patient died, however, of peritonitis. Two other cases had occurred during the past summer. In one the patient was a man about sixty years of age, who had a tumor in the axilla, which he had noticed a number of months, and which probably originated with an injury that had caused, it was supposed, fracture of the arm. There was a pulsating tumor, which could be emptied by pressure on the subclavian artery. The pulsation ceased after a time, and at a consultation great doubt was expressed as to the existence of aneurism. The result of the consultation was unfavorable to tying the artery at that time. A few days afterwards there was copious hemorrhage. He tied the artery just below the clavicle. There was extensive discoloration of the integument and tissues about the large tumor, and a number of days after ligating the artery the integument of the axilla sloughed. The patient will probably live, although he has lost much blood, and has had a tedious time of it. The other case was due to an injury of the forearm, received six weeks before Dr. Post saw the patient. Hemorrhage at the time of the accident was stopped by pressure made by a physician. At the time Dr. Post saw the patient the limb was very much swollen and hard, there was no pulsation, but the whole history pointed clearly to an injury of the ulnar artery, leading to a diffuse aneurism. He applied an Esmarch bandage, and cut down and exposed a cavity containing a large quantity of blood. The ulnar artery was wounded, and he tied it on either side of the wound.

EXFOLIATIVE METRITIS.

The specimen was presented by Dr. H. J. GARRIGUES, and was obtained from a patient who died at the Maternity Hospital lately. Two weeks previous she had suffered from diphtheritic ulcers of the vagina and uterus. To the former was applied equal parts of chloride of zinc and water, and to the latter an eight per cent. solution of chloride of zinc. The cavity of the uterus was washed out with carbolized water before and after the application of the chloride of zinc solution. The vaginal ulcers healed almost completely. The offensive discharge from the womb ceased, and an offensive diarrhœa was also cured. The womb, however, remained enlarged, extending nearly up to the umbilicus. The temperature would again run up from time to time, and on one of these occasions, while again washing out the uterus with the carbolized solution, which had so often before been of much benefit, the patient went into collapse, and died in a few minutes. At the autopsy the uterus was found ruptured before and behind, in the former place the rupture being three inches in length, and less at the latter. At these points the wall was as thin as a sheet of paper, but there was no sign of an ulcer, the ulcers having healed completely. Coils of the small intestine were adherent to the uterus, and at two places fine canals led into them. A still more interesting feature of the case was the presence of a body lying perfectly

free and loose within the uterine cavity, being four inches long, two inches wide, and one inch thick. Microscopical examination showed that the body was composed of a portion of the inner wall of the uterus, which had been cast off by ulcerative process beneath. Interspersed with the muscular tissue was inflammatory material. It was in a well-preserved condition. This case should not be confounded with cases of gangrene of the uterus. As rare cases tend to repeat themselves, it was only recently that another physician met with a similar case, the part cast off in that instance being even larger than in this. Dr. Garrigues said that this foreign body in the womb had doubtless acted as a valve, preventing the exit of the injected fluid on this occasion, and was a factor in causing the rupture of the very thin uterine walls. He had found the record of but two like cases in the literature of the subject.

Dr. C. HEITZMANN remarked that the muscular fibres in this specimen were very well preserved indeed, and he asked whether there could not have been attachment of the body to the womb at some point, or how long did Dr. Garrigues suppose it had remained in the uterine cavity. Dr. Garrigues replied that it was two weeks from the time the woman suffered from the diphtheritic attack until her death. Dr. Wyeth then suggested that the disinfectant injections, which had been made quite frequently, might have kept the specimen in its well-preserved state.

Dr. R. W. AMIDON presented a specimen of

URINE CONTAINING HIPPURIC ACID.

The patient, a gentleman 73 years of age, up to about four years ago enjoyed almost perfect health. At that time he was much troubled in business and began to suffer from persistent, almost continuous frontal headache. The summer following, his appetite became almost ravenous. Gratifying the appetite relieved the headache to a considerable extent; and that was about the only thing which would relieve it. In July, 1881, his appetite became still more ravenous, and was followed by gastric catarrh, from which, however, he recovered. He noticed last fall that using his eyes made the headache much worse, and several oculists were consulted. He was told by some physicians that he was suffering from phosphoruria, but Dr. Amidon did not find any phosphates in the several specimens of the urine which he examined until after it had been kept a very long time. The urine was alkaline, as was the specimen presented; but this was very little ammoniacal, notwithstanding it had been kept for some time. Nearly all the specimens which he had examined presented another not very common feature, namely, the presence of hippuric acid. The crystals were commonly in the form of rhomboidal prisms, though the ends were in some instances chisel-shape. They were very apt to collect in rosettes. They were not soluble in weak acid, nor at all so in hydrochloric acid. He was much surprised in looking over the literature to find what various terms were applied to these crystals. It had been found that the quantity of hippuric acid is increased in the human urine by the ingestion of certain articles,—as huckleberries, mulberries, benzoic acid, etc.

Dr. HEITZMANN said the specimen and drawing presented by Dr. Amidon did not represent hippuric acid crystals, but simply phosphate of lime. Hippuric acid appears in the form of needles, and is very rare. He had seen it in but one case out of the hundreds which he had examined. Moreover, as the name indicates, urine containing hippuric acid should be acid, while the specimen presented was alkaline.

Dr. AMIDON said the specimen presented could not be very alkaline, since, after long keeping, it had scarcely any ammoniacal odor, and it contained oxalate of lime. It was true, certain authors agreed with Dr. Heitzmann's description of the hippuric acid crystal, but Dr. Amidon agreed with the very high authorities whose description corresponded with that of the specimen presented. Dr. Wyeth remarked that a similar illustration would be seen in Flint's "Physiology."

The PRESIDENT remarked that the physicians who had examined this patient's urine, and had found phosphoruria, took, as was quite commonly the case, a portion which was passed in the afternoon, and examined only a single specimen for the day,—a custom not to be recommended.

Dr. AMIDON also presented a specimen of

SPERMATIC FLUID,

obtained from an unmarried male patient, 40 years of age, who was a subject of nocturnal emissions for a number of years. During the past five or six months, however, he had none. He denied venereal excess, masturbation, or venereal disease. He had used alcohol in excess in his youth. During the past five or six years he had been having an emission, after stools particularly, and unaccompanied by an erection or sexual feeling. In this condition he came to Dr. Amidon, who told him at once that he had simple prostatorrhœa. He was surprised, however, subsequently, on examining some of the ejaculated fluid, to find that it contained spermatozoa. These were uniformly present. The patient improved under treatment by ergot, belladonna, and atropine, and at present sometimes passes over two weeks without an emission.

With regard to the second case, Dr. HEITZMANN had seen one instance in which a man had an emission just before micturition, and a number of surgeons here and abroad were unable to reach a diagnosis. On examining some of the fluid he found that it contained

spermatozoa of a very peculiar shape. He found pus-corpuscles with long cilia, resembling the tails of spermatozoa, as if the latter had migrated into the former, and the only admissible diagnosis seemed to be inflammation of the spermatic vesicle (?). He asked whether Dr. Amidon had noticed any such peculiarity about the spermatozoa in this case. Dr. Amidon replied that he found very few perfectly normal ones; there were many curled up, many with large heads, and many small ones. Dr. Heitzmann then confirmed this statement on examining some of the fluid, and was of opinion that the case was similar to the one just mentioned.

The PRESIDENT remarked that he had examined the fluid in cases of occasional involuntary emissions in a number of instances, and had generally found spermatozoa, and had supposed it was of no pathological significance, but due to an overflow of the vesiculæ seminales. The case would probably be different, however, if the emission took place quite frequently.

Dr. WYETH remarked that in some of these cases there was enlargement of the vesiculæ seminales, as had been illustrated by specimens presented at this Society, and the emission might sometimes be due to pressure of the distended rectum upon the enlarged vesicle.

Dr. WILLIAM T. BELLFIELD, present by invitation, showed some microscopical preparations of

BACILLI,

and made some remarks on the views entertained at the present time concerning their relation to different diseases, etc. As bearing on the possibility of diagnosing tuberculosis from the presence of these minute organisms in the sputa, the sputa of twenty-two different patients were submitted to himself and another gentleman for examination, without their knowledge of the history of the patients. They found the tubercle bacilli in all the specimens, less marked in two, and made a diagnosis of tuberculosis. This diagnosis had been verified by the physician of the hospital by physical examination in twenty of the cases, but in the two last mentioned the diagnosis was simply of bronchitis. Sufficient time had not elapsed to be able to determine whether in these two cases there might not have been commencing tuberculosis without sufficient signs to be recognized by physical examination. A vote of thanks was offered Dr. Bellfield for his interesting demonstration, after which the Society adjourned.

A SUIT AGAINST A DRUGGIST will come before the court for trial this month in this city. A lady was salivated by taking compound cathartic pills, which had been substituted for the compound rhubarb pills, ordered by her physician. She claims damages for serious injury to her health.

GLEANINGS FROM EXCHANGES.

HYSTERO-EPILEPSY IN A BOY.—M. Bourneville has put on record, in the *Progrès Médical* for August 26, a second case of hystero-epilepsy in a boy. The child was 13 years of age when he came under observation. The following points in his history seem worthy of note. His parents were first-cousins. His father was subject to migraine in early life; his mother had spasmodic wry-neck in infancy; one of her sisters was idiotic (?). The patient was the eldest child. He seems to have been always an excitable child and easily frightened, subject to night terrors. His hysterical attacks commenced in the month of February, 1880, about a month before he came under observation. The first one came on whilst he was at work at school, with vertigo, and, after lasting two hours, was terminated by singing, crying, and laughter. The senses of hearing, sight, taste, and smell were decidedly less acute on the left than on the right side, and the same may be said of the common sensibility of his buccal mucous membrane and conjunctiva. His intellectual faculties seemed unimpaired, and he was said to be gentle and affectionate. There was no history of masturbation. On examination, several different areas were found, over which pressure was painful (*zones hystérogênes*). They were situated as follows: 1, "*clou hystérique*," at a small spot, two centimetres in front of the vertex; 2, "*rachialgie*," over the spinous processes of the fifth, sixth, and seventh dorsal vertebræ; 3, symmetrical spots on each side in the fifth intercostal space, midway between the nipple and the axillary line; 4, a painful spot in the seventh left intercostal space, about five centimetres from the spine; 5, a spot over the manubrium sterni; 6, symmetrical spots over the loins; 7, a spot almost over the centre of the iliac fossæ, corresponding to the "ovarian" region. That on the left side is the most marked. The attacks recurred at regular intervals, and lasted from one to two hours. They were preceded by an aura, which consisted of a sensation of a ball rising from the penis to the epigastrium, and thence to the level of the larynx. This was followed by the "*clou hystérique*," and then he lost consciousness. The attacks were characterized by a preliminary stage of rigidity of unusually short duration, succeeded by a clonic period, which was, on the other hand, of unusual length, comprising varied contortions and passional attitudes. During this period he would try, by different methods, to injure himself or those around him. The attack concluded, he sometimes had hallucinations of sight. He also presented a hemianæsthesia, at one time on the left side, at another on the right. The patient was cured (apparently in a permanent manner) by the assiduous use of cold douche-baths. The

case may be noted as a typical one, both of "hystero-epilepsy" and of the way in which the physician's office is magnified in such disorders by our French *confrères.*—*Medical Times and Gazette.*

RECOVERY FROM TETANUS.—Mr. Shield reported the following case to the Cambridge Medical Society:

"A healthy country-lad, aged 17, was admitted on May 30. He was suffering from an extensive lacerated, contused wound on the flexor aspect of the left forearm, the result of the explosion of a gun. From June 23 to July 12 the symptoms were very severe, marked opisthotonus was observed, and the patient got rather emaciated. On July 10 (the twenty-third day of the disease) it was on the wane. Gradually the spasms grew less severe, the bowels acted naturally, and the appetite improved, while the patient was walking about the ward, with his wound nearly healed, and all tetanic symptoms were gone. Throughout the whole case the temperature was, for the most part, above normal, presenting curious diurnal variations, while on several occasions it reached the height of 104° to 105°. The pulse was quick and weak, and varied slightly with the temperature. The tonic spasmodic condition of the muscles did not relax during sleep. The muscles of the eyeball and tongue were not affected. The superficial muscles were extensively disintegrated, the radial artery was torn away, but the main nerves had escaped injury, and the ulnar artery was intact. The wound was treated by poultices and carbolized oil, and all went well until June 17, when symptoms of tetanus set in, with slight stiffness about the muscles of the jaws and of the neck. On June 19 these symptoms had become more pronounced, well-marked trismus was present, with epigastric pain. By June 23 the disease was fully developed; severe spasms, especially of the muscles of the back, were constantly present, the tongue was foul, the breath offensive, the bowels were constipated, and the pulse quick, while the temperature was high and the urine scanty and high-colored. Excessive sweating was also present, so that an eczematous condition of the cutaneous surface was produced. The onset of the disease, therefore, occupied about five days. The treatment adopted depended chiefly upon feeding and nursing. Plenty of good milk and eggs, with port wine and brandy, were frequently administered both by day and night, and fortunately swallowed and retained by the patient. Hypodermic injections of morphia were administered every evening, when the anguish was severe, and caused relief and some snatches of sleep. The bowels were relieved by enemata, and during their peristaltic action the patient seemed to have his sufferings increased, but after the evacuation the pains were alleviated. He smoked tobacco twice, and this gave him some relief from the accumulation of mucus in the fauces."—*Medical Times and Gazette.*

HYSTERECTOMY, PORRO'S OPERATION—RECOVERY.—Dr. T. Savage reports a case of a married woman, 25 years of age, whose health had been good until March 18, when she had vomiting and constipation, and an abdominal tumor was found upon examination. The uterus appeared to be quite distinct from the tumor; there was a sulcus between it and the cervix, and pressure from above did not affect the cervix. For reasons discussed in the paper, it was decided to operate, with the assistance of Dr. Dukes. The reporter says:

"On the following morning, therefore, Dr. Dukes giving ether, I made an incision nine inches long, the upper portion extending nearly two inches above the umbilicus. The tumor was found to be a large solid fibromyoma growing out of, and forming part of the right side of, the uterus. The cavity of the uterus was found to contain a fœtus, and was pushed upwards and to the left. The right ovary and Fallopian tubes were in front of the tumor, and almost black from compression between it and the abdominal wall.

"It was thought that it would be safer and easier to remove the whole mass, which was accordingly done, rather than attempt removal of the tumor alone. The stump was secured by a wire clamp, and its serous outer surface was attached by silk to the abdominal wound. Two thick silk ligatures were also tied round the stump, for security. Very little blood was lost, and much care was taken to prevent any from being left behind the bladder or on the vaginal roof, which appeared to be considerably dragged upwards by the clamped stump. A glass drainage-tube was inserted just above the stump, and perchloride of iron was applied to the end of the stump. After the operation, which lasted about an hour and a half, the finger passed into the vagina detected the cervix high up, but otherwise normal, showing that the wire had encircled the uterus at about the level of the inner os and had not included any of the vaginal roof with danger to the ureters. Only about four ounces of ether were administered. The mass removed weighed nearly nine pounds, and contained the fœtus with membranes intact. The recovery after this formidable operation was uninterrupted, and is very largely to be attributed to the care and skilful treatment of Dr. Dukes, who had the sole charge of the patient after the operation. She may now (August 25) be said to be quite well. The breasts secreted milk on the fourth day. The clamp came away on the twenty-first day.

"This is the second time that Porro's operation has been successfully performed in this country, so far as I have been able to learn.

The first case was, very curiously, done by Mr. Knowsley Thornton at the Samaritan Hospital the day before this one (see *British Medical Journal*, July 22), and it seems to me that it ought to be more generally successful than the records from abroad show it to have been. Dr. Alexander Simpson's compiled table shows recoveries 41.6 per cent., and deaths 58.3 per cent.; and in Italy, where it has been done thirty-eight times, the deaths were twenty-four, or 63 per cent., and the recoveries fourteen, or 37 per cent. Experience and observation up to the present time incline me to think that the extraperitoneal method of treating the stump will be found to be the best, more frequently than the intraperitoneal."—*British Medical Journal.*

COMMUNICATION OF VACCINIA FROM MOTHER TO CHILD.—The following curious case occurs in the Tenth Annual Report of the Board of Health of the City of Boston for 1881–82: "A healthy woman, the mother of two children, was vaccinated February 13, with bovine virus, by her family physician, Dr. J. T. Harris, of the Roxbury District. On the fifth day after vaccination the patient complained of headache, had considerable fever, and, in fact, had the usual amount of discomfort that attends a successful revaccination. The woman was at this time nursing her infant, about six months old. The child had not been vaccinated, on account of an attack of eczema. On March 1 an eruption appeared on the head, thorax, and legs of the child, who had been feverish and irritable for two or three days previous. On some portions of the body the eruption was confluent, but on the arms and thighs it presented the characteristic appearance of cowpox. It was not an instance of accidental inoculation, for there was no possible way in which the child could have introduced the virus at so many different points. The only explanation possible is that the disease must have been contracted from the mother through the medium of her milk."

[It would seem as if another explanation might be suggested, and that is communication *directly* by contagion, as vaccinia is undoubtedly an infectious disease in the lower animals, and might exceptionally prove such in man. The tender age of the infant might also increase its susceptibility.—ED.]

A SPECIFIC FOR OPHTHALMIA.—An infusion of the curious scarlet seeds of the *Abrus precatorius* has long been used in the interior of Brazil as a popular remedy in the treatment of ophthalmic disorders. In some experiments made by Dr. De Wecker (*Comptes-Rendus*) to test the action of this remedy, he found that a weak cold infusion, made from the powdered seeds, when applied as a lotion, rapidly produced a purulent ophthalmia of intensity corresponding to the number of applications made. The factitious ophthalmia thus produced disappeared in the course of ten days or a fortnight without any therapeutic intervention or danger to the cornea, and Dr. De Wecker is of the opinion that this property possessed by the seeds of provoking a very intense ophthalmia of short duration could be utilized in ocular therapeutics in the treatment of granulations, conjunctival diphtheria, etc. The leaves of the plant are also used in the East as a remedy in croupal cough.—*Medical Press.*

POISONING OF AN INFANT BY A DROP OF LAUDANUM.—Dr. Lydston, of Chicago, reports the following case of an infant, about a week old, born at the Charity Hospital, New York: "The nurse called my attention to the fact that the stools contained blood, which began to appear in slight amount and gradually increased. As the child had had some diarrhœa, I concluded that the trouble was of a dysenteric nature, and accordingly gave it a drop of tr. opii with two drops of castor oil, with the result of producing the symptoms of opium-poisoning to a marked degree, the surface being cold, the pulse feeble, and respiration very slow and shallow. The pupils were contracted and the child comatose, being aroused with difficulty. By slapping the surface smartly, and the free use of the cold douche, I succeeded, after a hard night's work, in restoring the infant. The experience gained was very valuable, as it served to impress me very forcibly with a point with which I was already familiar,—viz., the marked intolerance of children for opium. The most singular feature of the case is that upon careful examination—the diarrhœa having stopped and the hemorrhage still persisting—I found the source of the bleeding to be the vagina. There was no lesion visible, but the vaginal mucous membrane was considerably congested. The hemorrhage persisted for four days, and then ceased as gradually as it began. The child seemed otherwise perfectly healthy. The blood had one peculiar quality, in that it showed no disposition to clot, resembling in that respect normal menstrual blood. There were no evidences of precocious development. I attempted to detain the child for a time, but it was removed from the hospital, and I could learn nothing of its subsequent history."—*New York Medical Record.*

DR. HENRY MACCORMAC, of Belfast, has recently published a pamphlet on the Etiology of Tubercle. Dr. MacCormac, believing, as he does, that the cause of phthisis is due to the inhalation of rebreathed air, and that perfect ventilation is the antidote, is antagonistic to Koch's theory as to the cause of the disease,—viz., that tuberculosis is a parasitic disease, the parasite being a bacillus about as long as a blood-corpuscle, and that the affection is communicable by infection, or conveyed into the system by dust. The author does not contend that bacilli are not found in tuberculous subjects, but his chief argument

appears to be that before there can be tuberculous bacilli the man or brute must be tuberculous.—*London Lancet.*

MISCELLANY.

BLUE MILK.*—The blue appearance which milk sometimes presents after standing a few days is due to an organism which is allied to bacteria, and can be transplanted into other samples of milk and various solutions. It thrives according to the proportion of acid present and the condition of the casein; it appears after a certain degree of acidification has taken place, and prevents the further formation of acid. The casein must also be unchanged; it is then held in solution during the bluing process. The bluing occurs only in presence of oxygen, and is attended with evolution of carbonic acid.—*Druggists' Circular.*

DR. PIDOUX died on the 4th ult., at his residence in Paris, from diabetic gangrene. He was more than an octogenarian, took his degree in 1835, and has been a member of the Academy of Medicine since 1864. Dr. Pidoux has written a great deal, but his principal work is his "Traité de Thérapeutique et de Matière Médicale," the first edition of which was published in 1839, in conjunction with the late Dr. Trousseau. He was for a long time principal physician at the Eaux-Bonnes, and was a great authority on matters connected with the therapeutic action of sulphurous waters. He was also Officer of the Legion of Honor.—*Paris Letter to London Lancet.*

NEW PROFESSORS AT HARVARD.—Dr. David William Cheever has been appointed Professor of Surgery by the Board of Overseers of Harvard University, and Dr. Charles P. Lyman was appointed Professor of Veterinary Medicine, the latter being required by the veterinary school which it has been decided to open in the university this fall, in which full theoretical and practical instruction in the veterinary art will be given. The regular course for veterinary students will be three years.

MR. VACHER, in the Section on Public Medicine of the British Medical Association, said that "milk from tuberculous cows must be regarded as dangerous, but the transmission of the disease by milk was almost incapable of proof, the milk ingested by the person developing signs of phthisis being but one of many possible sources of the disease. The practical course was to boil all milk to be used as food."

* F. Neelson, in Bied. Centr.—Journal of the Chemical Society.

DR. MORELL MACKENZIE, of London, after spending several days in this city, has gone to Washington. He is expected to return on the 10th inst., when a reception and dinner will be given by some members of the Philadelphia Laryngological Society.

DEATHS FROM CHLOROFORM.—The *British Medical Journal* of September 16 reports two more cases of death during chloroform-administration, one at St. Bartholomew's, the other at the London Hospital. The coroner's jury considered it "death by misadventure."

THE General Introductory to the Course of Lectures of the Medical Department of the University of Pennsylvania was given by Prof. Leidy on October 2, at noon. That at the Jefferson College was given in the evening of the same day by Prof. Brinton. Both were well attended. A larger number of students are now in the city than at the corresponding period last year.

THE Semi-Annual Conversational Meeting of the Pathological Society was held September 28. Dr. J. Solis Cohen read a paper on "Tuberculosis of the Larynx." The Society held a social meeting after adjournment.

CLINICAL lectures have begun at the Pennsylvania and Philadelphia Hospitals. As usual, no fees are required for attendance.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM SEPTEMBER 16 TO SEPTEMBER 30, 1882.

MIDDLETON, P., ASSISTANT-SURGEON.—Granted leave of absence for one month on surgeon's certificate of disability, with permission to go beyond limits of the Department. S. O. 103, Department of Texas, September 20, 1882.

POWELL, J. L., ASSISTANT-SURGEON.—To report at headquarters, Department of Texas, to temporarily relieve Assistant-Surgeon P. Middleton as post-surgeon and attending surgeon at Department headquarters. S. O. 103, Department of Texas, September 20, 1882.

CARTER, W. F., ASSISTANT-SURGEON.—Relieved from duty at Fort Concho, Texas, to report to Commanding Officer, Fort Stockton, Texas, for temporary duty as post-surgeon. S. O. 103, Department of Texas, September 20, 1882.

SMITH, ANDREW K., MAJOR AND SURGEON.—Leave of absence on surgeon's certificate of disability granted in special orders No. 131, August 22, 1882, Department of Arizona, extended two months on surgeon's certificate of disability. S. O. 214, A. G. O., September 4, 1882.

BUSHNELL, G. E., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Granted leave of absence for one month. S. O. 147, Department of Dakota, September 7, 1882.

SPENCER, WM. G., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for four months on surgeon's certificate of disability. S. O. 219, A. G. O., September 20, 1882.

HOPKINS, W. E., ASSISTANT-SURGEON.—Relieved from further duty at Camp Washington, Gaithersburg, Md., and will proceed to Fort Adams, R.I., and resume his duties at that post. S. O. 168, Department of the East, September 22, 1882.